

SOUTHERN TEXTILE BULLETIN

VOL. VIII

CHARLOTTE, N. C., OCTOBER 15, 1914

NUMBER 7

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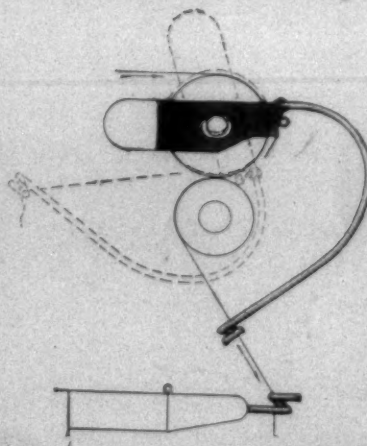
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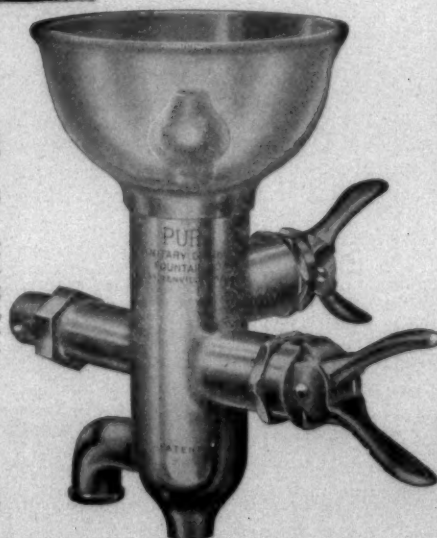
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Sources of Power

Francis W. Dean before National Association of Cotton Manufacturers

I.

The main sources of power, at the present time, are steam, gas, oil, and falling water. For steam and gas engines coal is the main fuel, in the former case to be burnt under boilers for generating steam and in the latter for conversion into gas for direct use in the engine cylinders. Oil is used for fuel under boilers but it can be used with far greater efficiency directly within the cylinders of engines, where, if mixed with the proper quantity of air, it can be burned rapidly, or exploded. In this way it produces a gas under high pressure, which by its expansive force is capable of pushing a piston. Oil engines are thus practically gas engines in which the gas is made rapidly or instantaneously in the cylinders. Kerosene and gasoline engines are familiar instances of refined oil for power purposes.

Gas for engines can be illuminating or natural gas, but in general it is "producer" gas, a producer being an apparatus which produces an explosive gas by partially burning coal. The gas thus made is conveyed directly to the engine from the producer, and not stored in a gasometer. Any kind of coal can be used, although the tar which is formed from some kinds, as the gas is made, is troublesome. Wood is used for producing gas where it is plentiful and where coal is expensive. In the United States fine anthracite coal is preferred. In iron works where blast furnaces are used for making iron from ore, a great quantity of combustible or explosive gas is generated. This was formerly burnt under boilers for making steam for driving the engines which blow air into the blast furnaces, and for other purposes. Now, however, the gas is conducted to gas engines and exploded directly in the engine cylinders. In this way the gas is much more efficiently used than when burned under boilers. In mills where pig iron is made and worked into steel products, there is enough gas produced as a by-product to drive not only the blowing engines for the blast furnaces, but the power engines as well. Engines suitable for using blast furnace gas were first developed and used in Germany some twenty years ago. They were quickly introduced elsewhere, and the use of steam engines at blast furnaces has passed, and great

economy in fuel and labor has resulted.

II.

Oil engines have been used in small sizes for many years, but some twenty years ago the late Dr. Rudolf Diesel of Munich, after many experiments brought into practical shape an engine which was entirely novel, and which was capable of using not only gas and high grade oil, but also crude oil and tar products for fuel. This engine languished for a number of years, but it has recently been revived and used for propelling ships as well as for land use. It is not a true explosion engine but rather a rapid internal combustion engine as the fuel is injected at the right time and burns while entering the cylinder. It is capable of using crude oil such as that found in Texas and Mexico.

The advantages of the Diesel engine for moderate sized ships are great. As compared with coal and steam, oil, weight for weight occupies about 88 per cent of the space required by coal and the calorific value is about 40 per cent greater, while the relative efficiencies of steam and oil engines are ordinarily as 10 to 25. The thermal efficiency of the Diesel engine may reach 36 per cent. As such engines require no boilers nor boiler room attendance, are much more efficient than steam engines, and as oil occupies less space than the equivalent coal, it is evident that the cargo carrying capacity of ships is augmented by their use, and the cost of operation reduced. It is hardly practicable to use oil engines in very large and high powered ships, at least hardly advisable, on account of the small size of the engines practicable. It is estimated that in some of the largest ships now afloat as many as 250 cylinders, or engines, would be required to generate the necessary power, and that the aggregate length of these engines would be about 1,200 feet.

For naval uses oil is of great value and all nations are desirous of using it in their navies.

III.

It is not always necessary to explode a gas or burn oil in a cylinder and drive a piston in order to apply power. In the Humphrey's pumping engine now used in England, somewhat, the gas is exploded directly on the surface of the water which is to be raised into a reservoir. It consists in the main of a pipe terminating in a combustion

chamber at one end and in an outlet to the reservoir at the other, with suction valves around the surface of a part of the pipe which is laid in the source of water supply. After an explosion, the first surge sends water to the reservoir, the first return surge forces out the burnt gas, a second outward surge draws in fresh gas, and a second return surge compresses it, when it is fired. Several engines of this type are in use pumping the whole flow of the river Lea into one of the reservoirs of the London water works with unequalled economy.

IV.

Oil engines are more expensive in first cost than steam engines and boilers combined, but for the reasons already given they will, in many cases, supersede steam engines. For land use they can never display steam engines where steam is needed for various other purposes than power, especially if exhaust steam can be used, as the most economical engine is the steam engine from which the exhaust steam is utilized.

While all of the deposits of oil over the world are unknown it is hardly probably that the duration of its supply will equal that of coal. I believe that it has been estimated that the yield of oil in California is likely to last one hundred years.

VI.

Coal as a source of power, is, as everybody knows, the main reliance of the world, and the steam engine worked with steam from coal fired boilers is the standard of the world, with which every other source is compared for quantity and economy. The production of coal every tenth year in the United States, and the magnitude of the quantities in recent years is shown in the following table:

Year.	Tons of 2,000 Pounds.
1814	22
1820	3,450
1830	320,072
1840	2,070,039
1850	7,018,181
1860	14,610,042
1870	33,035,580
1880	71,481,570
1890	157,770,963
1900	269,684,027
1910	501,596,378
1912	534,466,580

It is of very little use to speculate as to the amount and duration of the present coal deposits, but in 1905 it was estimated that the quantity of coal remaining in the prov-

fields of Great Britain and Ireland at depths less than 4,000 feet, was about 191,000,000,000 tons, in the unproved fields 41,000,000,000 tons, and at depths below 4,000 feet in the proved fields over 5,000,000,000 of tons. In 1900 it was estimated that the coal in England and some parts of the continent of Europe would last from 100 to 200 years, in some other parts of the continent 250 and in still others 600 to 800 years.

VII.

Without giving a definition of a unit of heat, the amount of heat thus designated which the complete combustion of a pound of coal under ideal conditions will generate, can be obtained in an apparatus constructed for the purpose. When coal is burned in a boiler it is possible to ascertain how much heat is absorbed by the water, and the steam generated in the boiler, and the proportion of this to that which the coal would generate under the ideal conditions referred to, is called efficiency of the boiler. This is commonly about 70 per cent, but can be as much as 80 per cent and even somewhat more. The remainder of the heat is made up of that required to heat the air which is drawn into the fire to support combustion, to heat, vaporize, and superheat the moisture in this air, and in the fuel, and to supply the heat lost by radiation and that which passes up chimney. Of the heat which the steam contains, only ten to somewhat more than 20 per cent can be reclaimed in a steam engine as useful work, depending upon the design of the engine, thus making the efficiency in the use of the heat in the coal with boilers and engines combined from 7 per cent to 16 per cent.

VIII.

Years ago mills were built on water power sites because of the water power. With the advent of the steam engine water power became of less importance, and in many cases if the mills had been built after steam engines and boilers had reached considerable efficiency the water power would not have been utilized. Water power has several disadvantages when it is developed to the advisable amount in any case. The quantity of water varies greatly during the year, and some years are dryer than others. In extreme cases the water falls almost completely in the dry months. Only a few years ago the

(Continued on Page 8.)

Cleaning Textile Machinery With Compressed Air

About five years ago this subject was very thoroughly discussed in the pages of the various textile papers and at conventions of the Cotton Manufacturers. The interest in the subject at that time was wide; and many manufacturers installed apparatus. As far as we are aware, these have been very successful and the owners well satisfied with the results.

Lately, in visiting a number of mills equipped with air cleaning apparatus, I have noticed that the best practice is not always being followed. This leads me to address a few remarks to the trade on this subject. I do this in the hope that those already equipped will investigate the gains made possible by better methods;—and that those not equipped will profit by the progress of the last few years in their coming installations.

The advantages of compressed air cleaning may be summarized as follows:—

1. Necessary cleaning can be done more thoroughly than by any other method, and in considerably less time.
2. The necessary cleaning usually done while the machinery is in operation can be accomplished with absolutely no danger to the operative;—whereas accidents to operatives cleaning running machinery with brooms or cloths are frequent.
3. The manual labor of cleaning is greatly reduced and the new method is therefore much more acceptable to help. Better work and easier.
4. The saving in time required and the ability to clean machinery while in operation adds a very appreciable gain in production.
5. All departments can be kept so much more clean that the quality of the product is perceptibly improved and the risk of fire greatly reduced.
6. Reduced cost for cleaning accompanied by increased production is bound to reduce costs.

Field For Compressed Air Cleaning

The two largest fields for pneumatic cleaning are undoubtedly in the spinning and weaving rooms. Carding and roving machinery and nappers, while perhaps not offering the same returns as spinning and weaving, will show greatly improved results. Tenting machines, cloth drying machines, etc., handle large quantities of product, and in mills where these machines are worked to their limit the reduced stoppage yields a handsome return.

Mills using warp tying machines have large numbers of harnesses to handle in one department, and the cleaning of harnesses with a proper special equipment makes a spectacular and highly convincing demonstration of the advantages of compressed air for this purpose.

Mill ceilings, pulleys and shafting are often dirty because cleaning them is such a back-breaking task. By using a wooden pole through which passes a light weight brass tube, this hardship is tremendously reduced. Cleaning of shafting and ceilings should, of course, be done outside of running hours; or the

machinery in the neighborhood should be shut down while the overhead cleaning is going on.

Apparatus Required.

Five years ago pressures as high as 75 and 80 lbs. were freely used. The writer has come to believe that 30 lbs. pressure is sufficient and more economical.

The air compressor should be provided with an aftercooler. The aftercooler should be large enough to keep the temperature of the compressed air lower than that of the room. Thus all water and oil vapor coming from the compressor

valve is automatically closed and prevents a waste of air.

The long tip on this nozzle also enables the operative to reach all the parts of the machinery conveniently. In otherwise well equipped mills, I have seen short nozzles in use with as large as a quarter inch outlet. The disadvantage of this is obvious. The tip on the Parko nozzle has an outlet less than one-eighth inch in diameter. It uses about one-quarter as much air as the larger nozzle, and only discharges the air intermittently as it is required. The plain nozzle dis-



is condensed in the aftercooler. The air for cleaning is absolutely dry and free from troublesome water or oil.

I know of no better nozzle for air cleaning service than that recommended five years ago and shown below. The small tip limits the amount of air to that absolutely necessary to remove the lint or dirt from the machinery surfaces and to allow it to drop to the floor. An excess of air is not only very wasteful, but also tends to scatter lint from one machine to another. The nozzle has a lever which is pressed by the operative when in use. At all other times the nozzle

charges the full capacity of the nozzle from the moment the outlet valve at the other end of the hose is opened.

Five years ago plain hose or steel armored hose was generally used. Plain hose wore out very quickly owing to the friction on the corners of machines, etc., to which it was constantly exposed. Armored hose literally wore itself out by its own weight while it was being dragged around.

Practice has positively demonstrated the importance of using the lightest possible hose.

While five years ago three-quarter inch hose was used, the most

popular sizes in well equipped mills are today one-half inch and three-eighth inch, the latter prevailing in popularity on account of its lower cost but more on account of its greater durability.

Ordinary garden hose or commercial air hose will not do.

A hose especially designed for this service containing a high grade of rubber and a specially woven fabric proves, even if used bare, of superior durability. For further protection, a special closely woven cotton fabric is used outside of the hose. On account of its smooth hard surface it is not so easily caught or torn by nails, splinters or other projections to which it is exposed in use. This cotton covering alone will outlast the life of ordinary bare hose.

When the cover finally becomes unfit for use, the bare hose remains for further use and when a length finally becomes unfit for use, as a whole length, it may be cut up into shorter pieces about two feet long, known as leaders. These when coupled on to the end of a full length further increases the life by assuming the wear and tear that naturally comes closer to the coupling at the valve end.

Old hose should be carefully saved and utilized for this purpose.

Couplings.

The ordinary screwed coupling used on garden hose is provided with a loose gasket which is easy to lose and is seldom absolutely tight. In water service, the loss of a little water is unimportant, but in air service even the small leaks are expensive and annoying. Screw couplings are unfit to use on hose which is being frequently coupled and uncoupled on account of the wear and tear and danger of cross threading.

A "quick-hitch" coupling of some accepted type is therefore absolutely essential for air cleaning, not only on account of the increased facility of frequent coupling and uncoupling, but also because the "quick-hitch" couplings being equipped with expanding gaskets become absolutely tight as soon as the pressure is applied.

Valves.

To prevent the opening of the valves and consequent waste of air by irresponsible help, a special valve on which the stem is protected by a shield should be used. This stem should fit a special key, and key may be attached by a chain to the coupling end of the hose. The cleaning operator becomes the only person who can open the valve. This he does after attaching the hose, and closes it before uncoupling to move to the next outlet.

A sufficient number of valves and outlets should be installed in every department to enable the operative to reach every machine in the room without the use of an excessively long hose. The length commonly used is from 50 feet to 60 feet.

Mills already equipped with any type of hose or nozzles can con-

(Continued on Page 16.)

Principles of Fabric Structure

We propose to devote a little time to the consideration of elementary cloth construction and designing, a study of which, judging from the many enquiries we receive, would clear up some of the difficulties encountered by our readers.

Although mainly concerned with woven fabrics, it is well for the student commencing his studies in this subject to begin by taking a brief survey of all the methods by which cloth can be produced, whether by the ordinary loom with which he is familiar, or by other processes or classes of machinery. On making such a survey it will be found that two distinct principles of structure are adopted in the production of fabrics. By the first principle, fibres of various kinds are placed together in such a manner as to produce a substantial sheet of the required width and length which possesses a moderate degree of strength and wear resisting properties. Feltings and sheets of wadding are the principle examples of this class. The better classes of feltings are made from wool or hair fibres. These are first of all reduced to the form of sheets by carding, a number of such sheets according to the desired thickness of the ultimate fabric, are then placed upon each other, and subjected to pressure whilst in a hot, moist condition. This brings into play the natural felting or milling properties of the material, and causes fibres out of the different sheets to interlock with each other to such a degree that they can only be separated with difficulty, the result being a solid sheet of matted fibres possessing the qualities named, and suitable for a variety of purposes. Vegetable fibres do not possess the felting properties, hence they cannot be used in the same manner, but thick sheets of cotton fibres similarly disposed, are used for wadding or placed between ordinary woven fabrics to increase their bulk and produce quilted cloths, also for surgical purposes. The second class of fabrics may be described as thread structures, for in this case the fibres or raw materials are first of all converted into threads or filaments of indefinite length, and sufficient strength to enable them to withstand the necessary operations for conversion into a fabric. The production of such threads is the function of spinning operations, in which comparatively short fibres are placed together in such a manner as to take advantage of their natural cohesive properties and produce a continuous length; or natural filaments of considerable length are combined so as to produce a thread of desired thickness and strength. Thread structures are of course much more important than fibre structures since they admit of greater variety in their construction, and are more complicated. Opinions differ as to the number of distinct thread structures, but for present purposes they may be divided into four classes, namely, knitted fabrics, plaited fabrics, lace, and woven fabrics.

Knitted fabrics are composed of a

single thread which is first of all formed into a row of loops of the desired width or shape. Another row of loops is then formed by passing the thread successfully through each of the loops of the preceding row. This operation is continued until the required length has been obtained, and by varying the number of loops in successive rows any desired shape of fabric can be produced. Knitted fabrics are readily distinguished from the fact that if cut at any point the whole structure can be unravelled into a single thread.

Plaited fabrics may be described as warp structures since they are produced by interlacing and folding about each other a number of longitudinal threads. They may be distinguished from woven fabrics, to certain styles of which they bear some resemblance, by the fact that the interlacing and folding is always in a diagonal direction. The threads are divided into two sets which are caused to zigzag from one edge of the fabric to the other, but in opposite directions. At the same time each set of threads interlaces alternately under and over each other. On arriving at the edge of the cloth the threads turn over or fold about themselves and move to the opposite edge. The difficulty of dealing with a large number of threads makes it impossible to produce wide fabrics in this manner, and the principle is mainly employed for the production

of narrow wares such as braids and neckties.

The structure of lace is probably more complicated and varied than that of any other fabric. It is mainly a warp fabric, and the essential feature is that threads may be twisted completely round each other as well as moved transversely, the latter motion taking place when it is desired to form figures. The simplest form of machine-made lace may be said to consist of a set of parallel threads round each pair of which a third thread is twisted. Where figure is required the latter thread is passed horizontally from one to the other of the parallel threads, being twisted round them after each movement. When not working in this manner, the moving thread twists round one or other of the parallel threads, leaving an open space between them, and in this manner figures of varying degrees of density are produced upon an open work ground, the texture being of remarkable strength considering openness and the quantity of material consumed.

Woven fabrics are formed by the interlacement at right angles, of two distinct sets of threads which are distinguished as "warp" and "weft" respectively. The former set of threads occupies a longitudinal position in the loom while the latter set loom while the latter set is placed transversely. Two results follow from this interlacement, namely,

structure and pattern, for evidently the mere interlacement of the threads by binding them together gives a firm substantial fabric, while pattern or design follows from the order of the interlacement.

Out of the considerable variety of woven fabrics three distinct types are noticeable, namely, (1) ordinary woven fabrics, (2) pile or plush, and (3) gauze or leno. In the majority of cases the warp and weft threads are placed in the cloth at right angles to each other, and remain in that position as described above, these may, therefore, be defined as ordinary woven fabrics. It will, however, be convenient to subdivide then into (a) single make fabrics or those composed of one set of warp threads and one set of weft threads; and (b) bundle-make or compound fabrics in which several sets of warp and weft threads take part in the construction, in order that greater strength, bulk or facility for ornamentation may be obtained. Pile or plush fabrics are distinguished by having a pile or nap formed by threads or fibres which stand erect from a ground cloth. Three kinds of pile may be distinguished, namely, warp pile, weft pile, and raised pile, the latter being a fibre pile, while the other two have the pile formed by threads. Warp pile is formed by two methods, in the first case lightly tensioned threads are flushed, in a negative manner, upon the surface of a ground cloth, as in terry or Turkish toweling. In the second method, which gives a positive pile, warp threads from a separate beam are raised above wires which are inserted in the shed, or division in the warp threads, during weaving. After a sufficient number of such wires have been woven into the surface of the cloth, the first one is either withdrawn or cut out. When withdrawn the pile threads are left in the form of loops, as seen in Brussels carpets; when the wires are taken out by cutting the threads which pass over them, cut pile, as in velvets and plushes, results. In weft pile, threads of weft are flushed or floated over the surface of a closely interwoven ground cloth, these flushes or floats are afterwards severed by a fine sharp-pointed knife; velveteens and corduroys belong to this class. Raised or fibre pile is produced by subjecting ordinary woven fabrics having soft spun weft to a process known as raising. The cloth is here passed over revolving rollers which are covered with hooked wire teeth. These teeth penetrate the threads and partially drag out the fibres as the cloth leaves the rollers. This class is not, however, usually classed with pile fabrics since the pile is due to an after process, and is not formed during weaving or does not require a special order of interlacing.—Cotton Factory Times.

Two Causes For Trouble:

Women's love of dry goods—and men's love of wet goods.—Park's Piping Parables.

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Cotton Spinning Examinations

In April of each year the City and Guilds of London Institute, London, England, hold cotton spinning and weaving examinations and it has been our custom to publish many of the questions.

We have found that many of our subscribers have been greatly interested in the examination and this year we shall publish practically all of the questions that will interest our readers. The answers given to the questions are taken from the Cotton Factory Times of England and are by their well-known contributors who use the names "Lectus" and "Fabricus."

Question.—Give a sketch of a cross border jacquard machine. Explain fully its action, and illustrate very clearly how each cylinder is brought into action, and explain how the cylinders are controlled automatically.

Answer.—The distinctive feature of a cross border jacquard is the arrangement whereby the same set of hooks can be controlled from either of two cylinders, one of which carries cards for the border design, and the other cards for the centre of the fabric. Thus we may either have an ordinary single lift jacquard containing a single series of hooks and needles through the medium of a series of short needles and levers operates the ordinary needles from the rear. This is the arrangement of Crossley's cross border jacquard wherein the change of cylinders is effected manually. Bothwell's cross border machine is an ordinary double lift double cylinder jacquard. Each neck band is connected to a pair of hooks in the ordinary manner, but the machine is worked as a single lift, that is one cylinder, and one set of hooks and needles work continuously for the border, the other cylinder and set of hooks and needles remaining stationary. But the changes are effected automatically by the aid of a chain barrel and a pair of levers which rest upon chains of high and low links carried by the barrel.

Question.—Explain how you would proceed and fix in a proper position a double acting dobby machine on a loom which had previously been weaving a plain cloth. How would you ascertain the correct centres for lift and bevel of shed? What results would you expect in the cloth if your shedding was not quite equal, assuming the cloth to be of a moderate number of picks, but of coarse weft, say, 8s counts, and with a fine reed 90s, and counts of warp yarn 50s.

Answer.—The loom would, of course, require to be provided with a suitable top rail or rails for carrying the dobby, a lengthened bottom shaft for driving it, and a suitable under motion for the healds. The method of procedure depends upon the style of dobby to be mounted. This in a machine of the Blackburn or White's type the bevel of the shed is already provided for by centering the griffe at one end, and lifting it from the other. But in the Keighley type of machine the draw

knives are fixed at an angle so that the rear hooks will be nearer to them than the front hooks. The rear T lever is also made slightly longer than the front one, so that the rear hooks and shafts have a larger sweep and lift. In fixing a Keighley dobby the centre of the jacks would be brought into line with the centre of the sley with the assistance of a plumb line; a plumb line from the jack to control the front shaft suspended to clear the sley when at the back centre; and the jacks set parallel with the heald shafts. When the machine has been thus secured the loom crank is brought to the top centre, or a little over that position, and the dobby sweep fixed on the bottom shaft in a horizontal position pointing towards the loom front. A connection is then made by means of the connecting rod between the sweep and the T lever, with the latter in a horizontal position. These settings should cause the draw knives to be at the extremity of their stroke when the loom crank is turned to the bottom centre. As to unequal shedding under the circumstances mentioned, the surface of the cloth will be uneven and rough and the shuttle will be liable to pick under or be thrown out.

Question.—What is your opinion of warpers' bobbins built up by a regular lift motion as compared with those produced by an eccentric lift motion? Would you recommend either of those systems as suitable for all counts of yarn? State very fully the reasons which decide your choice.

Answer.—The chief advantage of the regular lift motion is that it gives a uniform rate of unwinding and a uniform bobbin speed during a single traverse of the thread from one end of the lift to the other. On the other hand, the girth of the completed bobbin cannot exceed that of the bobbin heads, hence its contents must be less than that of a barrel-shaped bobbin wound under similar conditions regarding tension. The barrel-shaped bobbin is also less convenient to handle and store, and there is greater risk of damage and waste. Although the straight-wound bobbin is preferable for weak and delicate yarns on account of the freedom from jerkiness during warping, the factor which determines the choice of one system or other is not so much the counts of yarn as the arrangements which exist in the winding frame for tensioning the thread or otherwise securing a hard-wound bobbin. If the yarn is strong enough to withstand a considerable amount of tension and the same can be applied without abrasion of its surface, then a bobbin of sufficient contents can be obtained with the straight lift. But if, as the case in the majority of vertical spindle winders, tension of the thread is dependent upon drag, or frictional contact of the thread with a roughened surface, then it is not advisable to tension the thread to its utmost limits, and under such circumstances the eccentric lift is preferable when the contents of the bobbin are required

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CHARLOTTE, N. C.

to be as great as possible. The tendency at present appears to be in favor of the straight-wound bobbin or, at any rate, towards reducing the rotundity of the barrel-shaped bobbin.

Question.—Illustrate by a sketch the complete measuring and "knock-off" motion of a warping frame, enumerating at the same time anything which may cause the registering of the length to be inaccurate.

Answer.—The older form of measuring and stop motion consists of a tin measuring roller 18 inches in circumference, which is revolved by the pressure of the sheet of threads in their passage to the beam; a single worm at the end of the roller

shaft, which drives a wheel of 54 teeth on a short cross shaft at right angles to the roller; and a single worm at the end of the cross shaft, which gears with a disc or clock wheel of 132 teeth. Since each revolution of the roller is equal to half a yard of yarn and moves one tooth of the 54 wheel a complete revolution of the latter is equal to 27 yards of yarn. Each revolution of the cross shaft also moves one tooth of the clock wheel, hence each tooth of the latter is equal to 27 yards, and each complete revolution or warp to $27 \times 132 = 3,564$ yards. For the "knock-off" of the machine, the boss of the clock wheel has a spiral groove cut on its face, beginning near the disc and ending in a recess at the outside of the boss. The

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groove receives and supports the hooked and longer arm of a side lever, which is pivoted on the outside of the framing near the front, where it is bent sharply downwards and has a stud that rests against the head of the trigger rod. During the rotation of the boss the hooked end of the side lever is gradually raised in the groove until it reaches the recess at a complete revolution of the disc, whereupon it falls abruptly out of the groove, and causes the short arm to thrust the trigger hook off its retaining bracket to stop the machine. Suppose a beam of 18,500 yards to be required, this is equal to five warps and 680 yards, or 25 teeth of the clock wheel and five yards over. The latter length would be neglected, and the beams made five warps and 27 teeth or 18,495 yards. The disc would be taken out of gear with worm wheel, turned backwards for 25 teeth, or until the 107th tooth came opposite the pointer, replaced in gear, and the machine set in motion. A stopage would then take place at the 132nd tooth. This gives the odd 675 yards. The machine would then be stopped and restarted at each of the succeeding five warps required. Factors which cause the motion to register inaccurately are: Uneven running of the measuring roller, due to insufficient or unequal pressure of the yarn; delayed action of the stop rod; and the difficulty of setting the disc wheel with sufficient accuracy. The latter objection has been overcome in modern machines by motions which register by single yards up to

5,000, and which can be placed in view of the warper as she stands at the front of the machine. Another improved motion also enables any length to be run, and the machine stopped at the attainment thereof, without the necessity for intermediate stoppages and restartings.

After the War is Over.

Although the great war in Europe is far from over, it is not too early for the American manufacturer, whether directly interested in export trade or not, to give careful attention to the possibilities of the effect on the world's commerce of the adoption of new customs tariffs by foreign lands, the negotiation of new commercial treaties and the stream of immigration likely to flow to our shores, which will immediately follow the conclusion of peace.

The chief countries of continental Europe have reciprocal commercial treaties with each other, which the outbreak of the war, of course, at once terminated. Had there been no war, these treaties would have terminated in 1917. Preparation had already been commenced for the revision of these treaties in that year. The countries which are parties to these treaties are Austria-Hungary, Belgium, Germany, Italy, Roumania, Russia, Servia, Sweden, Switzerland and Portugal. Germany also had a commercial treaty with Japan which would have terminated in 1917.

Had there been no war, the industrial development both of European

countries and those of other continents would necessarily have caused a readjustment of duties in many directions. With respect to Germany, her most important treaty, seeing that England is a free trade country, would be with Russia, and in both Russia and Germany the question to decide would be whether to harmonize the sometimes apparently conflicting interests of the agrarian and the manufacturing sections of the population or to give further encouragement to the one at the possible expense of the other. As one German writer stated before the war, "the whole system of politics throughout the world becomes more and more a policy tending to protect the economic interests of the Great Powers. With the present grouping of these Powers, however, the relations between Germany and Russia must be of decisive importance for the peace of the world." The result of the war, whether it be a short one or a long one, necessarily will intensify national prejudices and antagonisms. At the same time, too much stress must not be laid on these matters, as the business men of all lands soon learn to adapt themselves to changed conditions, and racial prejudices are not long permitted to interfere with the course of trade if the cultivation of retention of such prejudices tends to limit profits.

Our war with Spain, instead of curtailing trade with that country, on the contrary, awakened greater interest than ever before on the part of Spanish merchants in American goods. The attempts in recent

years by certain communities and nationalities to boycott the goods of other communities and nationalities has had but a temporary effect, the agitation soon subsiding and business resuming its ordinary course.

The greatest change in the matter of customs tariffs and the one which would have the greatest effect on American exports would be the placing of customs duties on a number of articles now admitted into the United Kingdom free of duty. The Conservative party in the United Kingdom has for many years been friendly towards the imposition of moderate duties for protective purposes, but the Liberal party, which is now in power, has always stood out for free trade. Had there been no great war, it is not probable that the British free trade policy would have been materially modified in the near future. At present, however, the advocates of protective duties are very much encouraged, because they see that on account of the enormous expenses of the war the country will for many years be burdened with a greatly increased national debt, to bear the interest on which more money must be raised by taxation, and many naturally expect large accessions to the ranks of those who would prefer to see additional duties placed on imports rather than increased taxes on incomes. Even if the advocates of protective duties do not win, it is altogether probable that additional duties which necessarily will be imposed for revenue purposes will at the same time afford incidental pro-

(Continued on Page 15.)

Sources of Power.

(Continued from Page 3).

Connecticut river became practically dry. The result of this variation in the flow of water from plants, if steady powers are to be maintained. There are few if any month to month and year to year is to make it necessary to install steam industrial plants that can afford to run with a variable capacity, or with a capacity below the normal, and therefore in a fully developed water power a make-up steam plant is necessary. Since it not infrequently happens that the flow of water almost ceases, and sometimes does absolutely, it is apparent that a full power steam plant is a necessary accomplishment of a water power plant. Some figures from the flow of the Sudbury river in Massachusetts will illustrate the variation. These figures are the average yields in cubic feet per second per square mile of water shed for thirty-seven years arranged month by month in the order of wetness.

Months in Order of Wetness	Yield in Cubic Feet Per Second per Square Mile of Water Shed
Driest month.....	0.137
Second driest month.....	0.232
Third driest month.....	0.386
Fourth driest month.....	0.546
Fifth driest month.....	0.707
Sixth driest month.....	0.929
Seventh driest month.....	1.156
Eighth driest month.....	1.574
Ninth driest month.....	2.188
Tenth driest month.....	2.746
Eleventh driest month.....	3.518
Wettest month.....	4.776

It will be seen from this table that the yield of the Sudbury river in the driest month of the average year is less than three per cent of that of the wettest month. Furthermore, when it is considered that in the period of thirty-seven years mentioned there were many months when more water evaporated from the river than flowed into it from the watershed, and that in some other months the yield was almost double the maximum given in the table, it will readily be seen that water power does not appear so valuable to the engineer as it does to the layman. In the developments of Niagara Falls, the Mississippi river at Keokuk and at many other places the powers are so large that it will be a long time before the minimum is used. Until that time comes these can be called unfailing water powers. Nevertheless, in most cases except at Niagara, which for scenic reasons will probably never be de-

veloped to the minimum flow, the time will come when the powers will fail, and make-up steam power will be necessary. When this time arrives the cost of the water power will increase.

On account of the variability of the flow of rivers it is of the utmost importance that the excess yield of the watershed in the wetter months shall be stored for use in the dryer months. It is usually impossible to find storage basins capable of containing sufficient water to produce a steady yearly flow, but such areas can be found to some extent, and a great deal of help comes in dry months from stored water. Without this assistance, a water power based upon the natural flow of the stream is likely to be unattractive. The purchase of flowage rights and the cost of extra dams, etc., augment the fixed charges of the development considerably. Mills which grind wood for pulp use the power of wet months and store the pulp for use throughout the year and thus save a great deal of coal that would be required if the wood was ground as wanted, and this is almost the only case in which the wet season flow of streams is directly used.

Water powers have within a few years become much more important than formerly on account of the advent of electrical generation and transmission. Powers which were so far from industrial centers that they could not be utilized can now be developed and transmitted by wires to those already formed centers if they are not too far off, and this transmission can be as much as two hundred miles, and possibly more.

Whether it pays to develop a water power depends almost entirely upon the cost of coal at the point of utilization. In some places coal is so cheap that it does not pay to develop a water power on account of the necessity of an equal power of steam, with the consequent fixed charges and attendance on two plants. Even at Niagara Falls it has great deal of help comes in dry the Canadian side is not a financial success, and the cost of steam power at Toronto and many other places served from Niagara is lower than power transmitted from Niagara even when this charge is insufficient for the sinking fund, provision for which must sometime be otherwise made. On this side of the line it has been stated that steam generated power can be made and sold in

Buffalo at a lower price than Niagara power at that point.

IX.

There is a widely deposited fuel called peat which has always been used in some part of the world for fuel to a comparatively small extent. Peat occurs in shallow wet depressions, and in the United States outside of the coal regions, except in Michigan, where both peat and coal occur. It is of immense potential value, and it is roughly estimated that there are some 13,000,000,000 tons of peat in this country, exclusive of Alaska, and that its potential value is about \$40,000,000,000.

Peat is always very wet containing 85 to 95 per cent of water when excavated and must be air dried. No further drying is useful, as water is immediately re-absorbed up to atmospheric wetness. Atmospheric drying for a few days will reduce the weight of peat about one-half and continued drying in the sun and wind will reduce it to from 8 to 25 per cent.

Commercially, peat must be compressed in order to reduce its volume to practical limits for handling and transportation. This will be apparent when it is stated that air-dried peat occupies from eight to eighteen times as much room as the equivalent of good coal, and when hand fired in boilers requires almost continuous shoveling. In heating value, air-dried peat from different places in the United States contains from 5,209 to 9,300 British thermal units per pound, while good bituminous coal contains from 13,000 to 14,500 units. In a general way, it is usually stated that peat has over half the heating capacity of coal, and is better than wood or lignites.

Peat burns with a clear flame, makes a hot and responsive fire, produces no smoke or soot, a small amount of ash and no clinkers. It kindles easily, will keep alive when shut up without a supply of air, due to self-contained oxygen, will immediately burst into flame when urged, and for house use in open fires is said to be an ideal fuel.

Gas can be made from peat by the producer process for driving gas engines, and this is being done in Europe where there are several large electric power plants driven by peat gas engines. While producer gas from anthracite coal contains 144 units of heat per cubic foot, from bituminous coal 156, that from peat contains from 132 to 175. From this it appears that the gas

from peat is as rich as that from coal.

X.

A source of power that has led to considerable speculation is the sun. Some particulars of a sun engine were given recently in papers read in England. Practically unlimited power comes from the sun to the earth, but its utilization is a difficult thing and is only possible in parts of the world where there is constant sunshine for long periods. In Philadelphia 32 horse power were developed at mid-day, and 14 horse power throughout eight hours of the day. At Meadi, Egypt, a 50 horse-power sun plant was recently built with parabolic mirrors for reflecting the sun's heat to a boiler. These mirrors aggregate about 14 feet in width and 205 feet in length, and are made to follow the sun by suitable mechanism. It is necessary to keep the mirrors free from dust. With coal at £3 per ton there was a saving of £410 per annum compared with a coal plant, although the cost of the sun plant was £790 more than that of an equivalent coal plant. It is obvious that the sun plant is applicable only for small powers and only where the sun is constant and bright and coal is expensive.

"Engineering" in an article on Energy from the Sun, states that the sun sends 7,000 horse power to the earth per acre, but that losses diminish this to 1,750 horse power, and even this cannot be realized. In fact at Meadi, trials of over three weeks duration, although the area of the sunshine-absorbing plant covered about seven-eighths of an acre, showed the highest output to be 19.1 horse power. At Philadelphia 0.41 of an acre gave an average of 18.54 horse power during five hours.

XI.

The wind is another source of power which is convenient in places but commercially is of no importance. A windmill 40 feet in diameter will sometimes give out eight horse power and costs several times as much as an equivalent steam plant.

XII.

When the various fuels that have been considered are nearing exhaustion, what is often called an unfailing supply can be obtained, namely, alcohol, which can be made from almost any kind of vegetable growth. For automobiles this kind of fuel is likely to be used in the near future.

W. H. BIGELOW

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DISCUSSIONS BY PRACTICAL MEN

Contest Rules.

The rules which will govern the contest which we will run in December for the best practical article on "Preparation of Warps for Weaving" are as follows:

(1) Articles must not be longer than three full columns.

(2) Articles must be signed with assumed names, but the real name of the writer must be known to us.

(3) The subject "Preparation of Warps for Weaving," will cover all operations from the time the yarn leaves the spinning frame until the warps are tied on the looms and weaving begun. Description of how to spin strong yarn is not part of this contest.

(4) The name of no special warp sizing preparation or of any manufacturer of sizings, etc., is to be mentioned, but this does not prohibit the writers from stating what raw products or ingredients have been found the most desirable by them.

(5) Articles will be published by us in the order received and the judges will be instructed that where two papers are of equal merit the first received shall be given their decision.

(6) No articles received later than Dec. 15th, 1914, will be considered in the contest.

(7) The judges will be instructed to throw out any articles containing sections copied from books or previously written articles on this subject.

(8) The contest will be decided by seven practical men actively engaged in cotton manufacturing.

(9) The prizes will be \$10 for best article and \$5.00 for second best article.

(10) After the contest the articles will be printed in book form and two copies given to each man who contributed an article.

Answer to Osnaburg.

Editor:

I have no doubt, but that after the full explanation given by Osnaburg in your issue of Oct. 8th, all will understand that he means a 44x28 30-inch 7-oz. 7s and 6.75s and not a 28x44 30-inch 7oz. 7s and 6.75s as stated at first.

Kaw.

Takes Exception to "Georgia Cracker."

Editor:

"Georgia Cracker" did not explain in what way that the worn bearings and necks of the calender roll on his drawing caused part of the cans to fill up before the others. I can not see how that the wearing of bearings and necks letting the rollers apart would affect the filling up of the cans as long as you did not interfere with your trumpet.

You must have had an excessive draft between the calender rolls and the front steel roll, and when your bearings and roller necks begin to wear you begin to ream out

the trumpets, thereby reducing the resistance in the trumpet so the calender rolls will take up the sliver as fast as it is delivered by the front steel roll; and also not condensing it to the same density as the other slivers, therefore the cans filled up quicker. Georgia Cracker, if you have been practicing this you have undoubtedly had a lot of trouble with uneven work. The best thing you can do is to go over your calender rolls and see that they fit up so as to get a good firm grip on the slivers, and get a trumpet reamer and see that all of your trumpets are reamed out to the same size, you will have to be governed by the weight of the sliver and local conditions as to how large to ream your trumpets.

The trumpets ought to be reamed out large enough for the calender to take up what the front roll delivers with a 1.03 of draft between the calender rolls and front steel roll, allowing the end to sag down a little between the calender and front steel roll.

It is best sometimes with an extra heavy sliver to run as low as 0.95 of draft between the calender and front steel roll for as the weight of sliver is increased the friction or retardation of the top leather rolls is increased.

The best way I have ever found to find out just what size my trumpet should be, is to put on a compensating gear that would give a 1. of draft, and break back all the ends on the frame but one, and ream out the trumpet a little at a time until I would get the proper tension on that one end, at the same time being sure that all the top leather rolls on that individual end was in good condition, and then reamed all my other trumpets the same size, and if there is any defects in your top leather roll it will show up.

Employee.

Efficiency, the Problem of Today.

Editor:

To the readers of the Southern Textile Bulletin I would say that I do not claim to know all about the question of efficiency, but I am pleased to offer my suggestions on the many ways which could increase the value of the output of our employer's products. I am a man of 30 and I am digging every day to progress with the great textile world.

In obtaining efficiency, the first thing is carefulness; the second, cautiousness, and the third, teaching the help efficiency and its value, its needfulness on their part. The money man stands around on his job, looks for stopping time and pay day and neglects to teach his help what they should do. The overseer should advise his second hand the importance of teaching the section men to observe quality. In my years of experience I have found that I was looked at as a leader and guide to the help.

I will start at the opener room as

the cotton is first dealt with there. This is generally done by negroes and the second hand and overseer should see that the cotton is mixed properly and as even a mixing obtained as possible. After the mixing is obtained in the proper manner, the opener should not be overloaded and cause uneven feeding to the breaker picker, as such will make undesirable laps for the intermediate picker. This defect does arise here and the finisher picker is a place to watch as laps varying too much produce uneven and undesirable work.

The cards are the most important features of the card room, as on them depends cleaning of the many small specks of boll, seed, leaf motes and many other small impurities that are not taken out in the picker room process. To obtain the efficiency of the help here, they need to be taught, not driven. Now we are with a loose coil of fibres which has been deposited in a can, which next is taken to the drawing frames where six of them are run together, and drawn out to practically the weight of the card sliver. Right here is the time to teach carefulness, as in this process many a dollar's worth of the product can be destroyed, but if the proper advising is done it means money to the company.

From the process of drawing the sliver is taken to the slubber, where it first gets its name, roving. This frame is a place where particular care should be exercised in having the rolls set as near to the staple as possible without overstraining or breaking it. Teach the slubber hands to be careful and report any defect that may arise that has a tendency to produce defective work. Then to the intermediate the slubber roving is put two in one and drawn out to the required hank asked for by the spinner. Now if the stock has not been

worked into good even condition here, we are at a loss, as it is impossible to make even yarn out of uneven roving.

Efficiency, merely talked of, is no good. To obtain efficiency is to enforce it by teaching the help, not bossing it into them. The spinning room is the most important place to teach efficiency as most of the help are children. Get in line with the standard. You want more pay. Increase quality by practicing efficiency and that means more for the company and more for you. We can all see a railroad train, but we need to see the great importance of efficiency for our employers and show them we mean to run our jobs by less bossing and more teaching of efficiency.

Wild Cat.

Still Wants the Bulletin.

We have often been impressed with the fact that superintendents who resigned the positions in the South and return to their former homes in New England always like to keep in touch with this section and to continue as subscribers to the Southern Textile Bulletin.

The many friends of Francis Hamilton, formerly the efficient superintendent of the Norris Cotton Mills at Catechee, S. C., will be glad to hear of him again through the following letter:

17 Jenks St., Central Falls, R. I.,
Oct. 10th, 1914.

Clark Publishing Co.,
Charlotte, N. C.

Gentlemen: Enclosed find money order for \$1.00 renewing my subscription to your paper for the next year.

Your paper is all right and I look for it with pleasure Saturdays and always read it before dinner.

With best wishes for your success,
I am yours truly,

Francis Hamilton.

Names Wanted.

We wish to get a more complete list of the superintendents and overseers. Please clip out this blank and mail it to us with the names at your mill.

Name of Mill	
Town	
Number of spindles	
(Give exact number).	
Number of looms	
(Give exact number).	
..... Superintendent	
..... Overseer of Carding	
..... Overseer of Spinning	
..... Overseer Weaving	
..... Overseer of Cloth Room	
..... Master Mechanic	

SOUTHERN TEXTILE BULLETIN

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THURSDAY, OCTOBER 15

Cotton Manufacturing in Japan.

Japan, in normal times, is our most serious competitor in cotton goods export trade and we should therefore study carefully her manufacturing and selling methods. The report on Japan as made by Commercial Agent W. A. Graham Clark will begin in an early issue.

Program of Meeting of Southern Textile Association.

In this issue we are publishing the program of the meeting of the Southern Textile Association at Birmingham, Ala., on Nov. 12th and 13th.

We regret that a stronger and more interesting program has not been arranged for there is not a single practical paper on the list and in its formation the superintendents and overseers who are the bone and sinews of the Association have been entirely ignored.

It is not too late for the Program Committee to revise the list and secure some superintendents and overseers or master mechanics on practical subjects such as are of interest to the members.

We would have made this suggestion earlier but the chairman of the Program Committee, in violation of all rules of ethics and propriety, withheld the program from all the other textile publications until after he had published same in his own journal.

Superintendent For Ten Years.

A few weeks ago we published our "Honor Roll" of superintendents who had held the same position for ten years and the list attracted much attention. Any man who has been able to hold his own as a superintendent, through all the trials and vicissitudes of the cotton manufacturing business, in the past ten years is entitled to much credit even if he is not with the same mills.

There are many good reasons for changing positions for often it is to go to a larger mill or one offering more opportunities for advancement and it is no discredit to a man to be with a different mill from the one he was with ten years ago.

There must be something to any man and he must have done good work if he remains a superintendent when so many of those of ten years ago have dropped out of the business.

Our list of the superintendents of 1904 is taken from the Blue Book of that year and as they did not name the superintendent of every mill we may have omitted some men that should be included in the following list but omission is not intentional and the error will be corrected if we are notified.

NAME	Mill of Which Was Supt in 1904.	Mill Which is Supt. (or higher) in 1914.
J. H. Hines	Woodstock Mills	Columbus Mfg. Co.
Jno. W. Pierson	Avondale Mills	Valley Creek Mills
J. W. Sanders	Tuscaloosa Mills	(Pres.) Aponaug Mfg. Co.
Jno. L. Davidson	Dallas Mfg Co	(Gen. Supt.) Georgia Cot. Mills
Geo. H. Greason	Mobile Cotton Mills	Royal Cotton Mills
Jno. R. Montgomery	Montgomery Cot. Mills	(Mgr.) Montg'ry Cordage Co.
F. T. Radford	Estelle Mills	Tipton Cotton Mills
T. B. Wallace	Tallassee Falls Mfg Co.	Duneean Mills
N. C. Roe	Monticello Cot. Mills	Abingdon Mills
W. J. McDonald	Star Thread Mills	Walton Cotton Mills
G. P. Jeter	Exposition Mills	Henderson (Ky.) Mfg. Co.
W. M. Driver	Canton Cotton Mills	New Century Mills
S. Y. Austin	Whittier Mills	Unity Spinning Mills
F. D. Milstead	Milstead Mfg. Co.	(Agt.) Tallassee Falls Mfg. Co.
J. T. Jordan	Spaulding County Co. Mfg. Co.	Jefferson Cot. Mills
P. L. West	Dublin Cotton Mills	Hermitage Cotton Mills
R. K. Matthews	Floyd & Co.	Imperial Cotton Mills
Allen Little	Boyd-Mangham Mills	Kincaid Mfg. Co.
W. P. Barnes	Rushton Mill	Griffin Mfg. Co.
O. H. Farr	Whitman Cot. Mills	Manetta Mills
Geo. H. Lanier	Pepperton Cot. Mills	(Gen. Mgr.) West Point, Lanett, Riverdale, Shawmut Mills
W. S. Dunson	Dixie Cotton Mills	Dunson Mills
Geo. W. Murphy	Unity Cotton Mills	Shawmut Mills
H. C. Dresser	Gen'l Supt Bibb Mfg. Co.	(Gen. Supt.) Palmetto, Saxe-Gotha, Lexington, Middleburg and Valley Falls Mills.
J. W. Goodroe	Toccoa Cotton Mills	Cochran Cotton Mills
W. H. Newton	Upson Mfg. Co.	Star Cotton Mills
C. H. Robertson	Winder Cotton Mills	Eno Cotton Mills
J. S. Pleasants	Kosciusko Cot. Mills	Laurel Cotton Mills
E. A. Hall	Magnolia (Miss.) C. M. Cannon & Co.	
Eugene Cross	West Point (Miss.) Mill	Taylorville Cotton Mill
J. D. Bacon	Efford Mfg. Co.	Borden Mfg. Co.
J. M. O'Brien	Asheville Cot. Mills	Tallassee Falls Mfg. Co.
G. A. Howell	Chronicle Mill	Shaw Cotton Mills
B. A. Holmes	Orient Mfg. Co.	Irene Mills
J. R. Withers	Ozark Mills	Flint Mfg. Co.
J. B. Meacham	Trenton Mills	Buck Creek Cotton Mills
W. J. Thompson	Holt Granite Mfg. Co.	Hopedale Mills
T. N. Webb	Eno Mills	(Treas.) Bell Vue Mfg. Co.
R. D. Jones	Anchor Cotton Mills	Cowkee Mills
H. G. McFall	Enterprise (Kg's Mt.) Mills	Catawba Cotton Mills
J. W. Black	Kinston Cotton Mills	(Mgr.) Caswell Mills
S. V. Upchurch	Scotland Mills	Valdeese Mfg. Co.
Edgar Love	Daniel Mills	(Pres.) Saxony Spinning Co.
W. McCloud	Piedmont (N. C.) Mills	Elm Grove Ct. Mill
J. W. Kaneer	Lumberton Cot. Mills	Statesville Cot. Mill
T. W. Harvey	Monroe (N. C.) Mills	Glenola Cotton Mills
A. N. James	Tuscarora Mills	(Mgr.) Kindly Cotton Mill
Jno. B. Boyd	Dover Yarn Mills	Patterson Mills Co.
C. C. Randleman	Randleman Mfg. Co.	Weldon Cotton Mfg. Co.
J. E. Wicker	Roanoke Mills	Holt-Morgan Mills
W. B. Cole	Steele's Mills	(Treas.) Hannah-Pickett Mills
A. B. Sanders	Statesville Cot. Mills	Highland Park Mill No. 3
A. M. Fairley	Tarboro Cotton Factory	Scotland and Waverly Mills
E. A. Thompson	Abbeville Cotton Mills	Pell City Mfg. Co.
R. L. Cumminock	Brogan Mills	(Pres.) Alta Vista Mill
Chas. Poore	Cox Mfg. Co.	Louisville Cotton Mills
J. W. Black	Bamberg Cotton Mills	Harmony Grove Mills
W. C. Cobb	Belton Cotton Mills	Ware Shoals Mfg. Co.
W. A. Black	Palmetto Cot. Mills	Baumont Mills
T. J. Digby	Glenwood Mills	Oakland Mills
R. L. Walker	Enoree Mfg. Co.	(Pres.) Martinsville Cot. Mill
T. H. Rennie	Graniteville Mfg Co.	(Pres.) Pell City Mfg. Co.
W. Y. Harrison	Grendel Mills	Covington Mills
J. J. Bradley	Hamer Cotton Mills	(Agt.) Merrimack Mills
S. C. Smyley	Liberty Mfg. Co.	(Mgr.) Eastman Cotton Mills
W. K. Davis	Ashby Cotton Mills	Marion (S. C.) Mfg. Co.
J. T. Abney	Laurens Cotton Mills	(Treas.) Swift Mfg. Co.
Chas. Iceman	Marlboro Mill	(Mgr.) Iceman Mills
B. J. Dobbins	Ninety-Six Cot. Mills	(Gen. Supt.) Henrietta Mills
M. B. Macomson	Pacolet Mfg. Co.	Saxon Mills
G. A. Buchanan	Arcade Mills	Darlington Mfg. Co.
W. W. Moore	Manchester (S. C.) Mfg. Co.	(Pres.) Wymojo Mills
S. G. Touchstone	Seneca Mills	Great Falls Mfg. Co.
D. Sutcliffe	Arcadia Mills	Deep River Mills
J. S. Thomas	Union (S. C.) Cot Mills	Pacolet (S. C.) Mfg. Co.
G. W. Ethridge	Warren Mfg. Co.	Jewell (Ga.) Cotton Mills
D. H. Jones	Glen Lowry Mills	(Mgr.) Victory Mfg. Co.
J. J. Ward	Fairfield Mills	Dixie (Ga.) Cotton Mills
Geo. F. Breit	Elk (Tenn.) Cot. Mills	Kinston Cotton Mills
Sam Westall	Jonesboro Yarn Mill	Sylvan Cotton Mills
C. A. Pender	Brenham Cot. Mills	Cowpens Mfg. Co.
H. W. Fairbanks	Dallas (Tex.) Cot. Mills	(Mgr.) Postex Cotton Mills
D. Wooten	New Century (Tex.) Mills	Dallas Waste Mills
Wm. Hinchliffe	Lynchburg Cot. Mills	Dallas (Ala.) Mfg. Co.

*On account of lack of space we give only the milli name. The address can be found by reference to the index of Clark's Directory of Southern Cotton Mills.

PERSONAL NEWS

O. W. Whatley, overseer of weaving at Calhoun, Ga., has been visiting at LaFayette, Ga.

Geo. F. Breitz has resigned as superintendent of the Kinston (N. C.) Cotton Mills.

H. W. Warner, superintendent of the Ivey Mill, Hickory, N. C., was a visitor in Charlotte this week.

Chas. Etheridge has resigned as second hand in spinning at the Dallas Mill, Huntsville, Ala.

Frank Etheridge has resigned as second hand in carding at the Dallas Mill, Huntsville, Ala.

Ernest Lence has resigned as second hand in No. 2 weave room of the Dallas Mill, Huntsville, Ala.

A. A. Short has resigned as carder and spinner at the Paola Mills, Statesville, N. C.

W. G. Freeman, of Hickory, N. C., is now fixing looms at the Erlanger Mills, High Point.

B. T. Cheek has been elected president of the Lavenia (Ga.) Cotton Mills.

T. R. Yow has resigned as president of the Lavenia (Ga.) Cotton Mills.

J. Byars Greer has been appointed assistant manager of the Gault Mfg. Co., Union, S. C.

A. T. Cain has resigned as overseer of spinning at Marlboro Mills No. 5, McColl, S. C.

Geo. Busher of New York State has accepted the position of overseer of spinning at the Marlboro Mills No. 5, McColl, S. C.

J. B. Meacham has resigned as superintendent of the Buck Creek Cotton Mills, Siluria, Ala., to Kinston (N. C.) Cotton Mills.

Marshall Dilling has resigned as superintendent of the Cabarrus Cotton Mills, Concord, N. C., to accept a similar position at the Buck Creek Cotton Mills, Siluria, Ala.

T. M. McIntire, superintendent of the Loray Mill, Gastonia, was a Charlotte visitor this week.

W. C. Owen has returned to his old position as second hand in No. 2, weave room at the Dallas Mills, Huntsville, Ala.

J. E. Lattimore of Lockhart is spending a short while in the Charlotte (N. C.) Sanatorium, but his health is reported to be improving.

W. T. Jones has been promoted from second hand to overseer of carding and spinning at the Social Circle (Ga.) Cotton Mills.

Paul Moore of Kannapolis, N. C., is now second hand in No. 4 weaving at the Dan River Mills, Schoolfield, Va.

C. S. Pitts has resigned as overseer of carding at the No. 4 mill of the Dan River Mill, Schoolfield, Va., to accept a similar position at the Arista Mills, Winston-Salem, N. C.

L. D. Lawson has resigned as section hand in spinning at the Dan River Mills, Danville, Va., and now has a position in the Arista Mills, Winston-Salem, N. C.

J. L. Hoover has resigned as spinner at the Hanah-Pickett Mill, Rockingham, N. C., and accepted a similar position at the Avon Mill, Gastonia, N. C.

Luther Lovell has resigned as overseer of spinning at the Marlboro Mill No. 3, McColl, S. C., to accept a similar position at the Hanah-Pickett Mill, Rockingham, N. C., whose death occurred Oct. 9th.

E. H. Buckner, formerly with the Abingdon Mills, Huntsville, Ala., has accepted a position as second hand in card room of the Dallas Mill of that place.

W. D. Lawson has resigned as overseer of carding at the Kinston (N. C.) Cotton Mills to accept a similar position at the Edenton (N. C.) Cotton Mills.

CARDS,
DRAWING,

COTTON
MILL MACHINERY

SPINNING
FRAMES,

MASON MACHINE WORKS

TAUNTON, MASS.

EDWIN HOWARD, Southern Agent
Greenville, S. C.

COMBERS,
LAP MACHINES.

MULES,
LOOMS.

W. D. Ballard, formerly overseer of weaving at the Glenola Mills, Eufaula, Ala., but now located at Calhoun Falls, S. C., has the sympathy of his many friends in the loss of his young son, W. D. Ballard, Jr.

J. H. Gault, president of the Gault Mfg. Co., Union, S. C., will hereafter be general manager of the Chattanooga Knitting Mills, Chattanooga, Tenn., the Richmond Hosiery Mills, Rossville, Ga., and two smaller knitting mills.

OVERFLOW PERSONALS PAGE 16.

Lenoir Cotton Mills,

Lenoir, N. C.

F. C. White Superintendent
W. P. Lee Night Superintendent
A. L. Setzer Carder
J. P. Chester Spinner
J. M. Childers Twisting
G. M. Haigler Master Mechanic

Limestone Mills,

Gaffney, S. C.

E. R. Cash Superintendent
J. E. Byers Carder
V. L. Splawn Spinner
W. B. Cash Weaver
A. M. Patrick Cloth Room
R. L. Byrd Master Mechanic

Hamrick Mills,

Gaffney, S. C.

E. R. Cash Superintendent
C. A. Sparks Carder and Spinner
S. J. Sanders Night Carder
J. D. Lavender Night Spinner
P. B. Moore Weaver
J. N. Dillingham Night Weaver
A. M. Patrick Cloth Room

Barringer Mfg. Co.

Rockwell, N. C.

R. H. Layton Superintendent
R. L. Linkler Carder

Arkwright Mills,

Arkwright, S. C.

J. H. Going Superintendent
J. B. Wright Carder
W. F. Rodgers Spinner
L. O. Bishop Weaver
D. P. Rodgers Outside
W. W. Lindsay Master Mechanic

Capital City Mill,

Columbia, S. C.

D. T. Bagwell Superintendent
J. W. Moore Carder and Spinner
J. H. Atkins Weaver
W. A. Jordan Cloth Room
W. O. Jones Master Mechanic

Lenoir Mill,

Lenoir, N. C.

E. C. White Superintendent
A. L. Setzer Carder
J. P. Chester Spinner
W. P. Nee Night Supt.
G. M. Higler Master Mechanic

Cheerfulness.

Cheerfulness pays. It is the most valuable business asset you have. Few of us are born with a cheerful disposition. Most of us either have to cultivate the habit or else go through life handicapped. Therefore, if you are not of lucky few by all means cultivate the habit. Learn to look on the bright side of life. Keep the sunny side of your nature toward others. Make cheerfulness your daily companion. Be an optimist.—Bee Hive.

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By maintaining Quality and Uniformity.

By giving the Trade a Sizing that is ALL SIZING and absolutely no water used in its manufacture

Our Chief Aim is to please our customers and produce better results for less money.

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MILL NEWS ITEMS OF INTEREST

Shelbyville, Tenn.—The Sylvan Cotton Mills have placed orders for 2,600 additional spindles.

Newport, Tenn.—J. W. Kyker is planning to build a hosiery knitting mill at this place.

Randleman, N. C.—The Deep River Cotton Mills have resumed operations after standing for about ten days.

Eatonton, Ga.—The Putnam Mills and Power Co. has closed its mill. How long it will remain idle and the reasons for closing it, have not been announced.

Bond, Miss.—The Mills Farm Company will build a cotton mill at this place for the manufacture of cotton piece goods. They have already purchased the machinery.

Kershaw, S. C.—The Kershaw Cotton Mill, which was forced to close on account of a break in the main shaft, has resumed operations after standing 10 days.

Hickory, N. C.—The Best Knitting Mill is running full time and part night time. They are said to have orders enough to keep them busy for several months to come.

Norfolk, Va.—The West Norfolk Knitting Mills have been incorporated with a capital stock of \$100,000. They will, it is reported, build a knitting plant.

Whitney, S. C.—The Whitney Manufacturing Co., recently noted as building a two-story addition to accommodate 13,000 spindles, has awarded the building contract to the Jordan-Munn Construction Co.

Hartwell, Ga.—The Hartwell Cotton Mill has declared a regular quarterly dividend of one and one-half per cent. President Geer is optimistic over the mill outlook and the mill is being operated on full time.

Bedford City, Va.—The plant of the Bedford Mills Co., which has been closed for several months, will soon resume operations. It was closed down several months ago on account of litigation, and threw many people out of employment.

McColl, S. C.—The three mills will resume full time this week; for quite a while they have been running for four days a week. The weave room at Marie Mill has temporarily closed.

Kinston, N. C.—The Ashley Company, operating silk mills in New Jersey, Pennsylvania, Virginia and North Carolina, will probably have to close down its plant here, employing colored labor only, because of the superior prices paid the labor in the tobacco redrying and stemming factories.

Lindale, Ga.—The Massachusetts Mills at this place, is tearing out about 30 or 40 old style looms, making ready for the installation of the new Draper looms to take their place. This is being done in No. 4 weave room, or "little weave room, No. 2."

This will mark the passing of all the old style looms from this mill, and every one of the more than 3,000 looms will be of the Draper style.

Greenville, S. C.—It was stated today in local textile circles that a Greenville blanket manufactory had booked cable orders from a foreign government for its output for the next six months. This will mean that South Carolina blankets will be worn by the soldiers now engaged in the titanic struggle in Europe.

This mill, which has been running on curtailed time for a year or more, has already made arrangements to double its working force in order to fill this big order. It was stated also that an agent of this foreign government would arrive here within a few days and would superintend the shipping of the blankets direct to his country.

Baltimore, Md.—It is reported locally that the Mount Vernon-Woodbury Cotton Duck Co. has just booked orders for 500,000 pounds of duck, and the mills are at work filling them.

It is said the orders were placed through New York agents and were for 100,000 pounds and 400,000 pounds respectively. These orders will keep the mills going for several months.

A local report comments: "The impression that the larger of these orders may be intended for use in the allied armies in Europe arises from the fact that an agent of the French government was recently making inquiry in New York for 250,000 pairs of leggins for use of the army of that country. These are made from the material the duck mills manufacture, and an order of this size will absorb nearly as much material as those just placed."

Martinsburg, W. Va.—The Berkeley Woolen Co., recently formed here for the purpose of operating the big plant formerly owned by the late Crawford Woolen Co., has applied to the secretary of state for a charter. The incorporators are: W. V. E. Terhune, New York; F. C. Foreman and Charles G. Smith, Martinsburg, and Shirley Carter and Captain L. F. Cooper, Winchester. The authorized capital stock is \$50,000. The new company will take over the plant from Thomas W. Martin, who purchased the mill at public sale, and will begin operations at once. Immediately after the organization of the company a small force of operatives will be put to work making up samples for the trade, and it is expected that this preliminary work will be completed to about two weeks.

Anderson, S. C.—The stockholders of the Anderson Cotton Mills met in the office of the company Oct. 12th, heard the report of the president and re-elected the board of directors for another year. The board is composed of J. W. Dorsey of New York, G. M. Whitin of Whitinsville, Mass., C. R. Makepeace of Providence, R. I., M. C. Branch of Richmond, Va., J. E. Sirrine of Greenville, J. R. Vandiver, J. A. Brock, N. B. Sullivan and Jas. D. Hammett of Anderson. The directors met immediately after the meeting of the stockholders had adjourned and re-elected officers for the ensuing year as follows: Jas. D. Hammett, president and treasurer; J. R. Vandiver, vice president, and J. M. Cathcart, secretary.

Anderson, S. C.—Brogan Mills has had a fair year, and the stockholders were well pleased with the report of the president, submitted at their annual meeting held Oct. 12th in the offices of the company. The same board of directors was re-elected, composed of the following: G. M. Whitin of Whitinsville, Mass.; George A. Draper of Hopevale; C. R. Makepeace of Providence; J. W. Dorsey of New York; Jas. D. Hammett, H. H. Watkins, Jas. P. Gossett, B. B. Gossett and C. S. Sullivan of Anderson.

At a meeting of the directors held subsequently to the meeting of the stockholders the officers were re-elected to serve the ensuing year. They were: Jas. P. Gossett, president and treasurer; B. B. Gossett, vice president and assistant treasurer, and G. T. McGregor, secretary.

Besides Mr. J. P. Gossett the out-of-town stockholders present were: J. W. Dorsey of New York and S. Baldwin of New York.

Langley, S. C.—In accordance with the order signed by Judge H. A. M. Smith in the United States district court at Charleston, in the case of W. H. Langley & Co., of Augusta, Me., against the three Aiken county mills, the receivership for which has been extended for one month, D. B. Gilliard, a standing master of the court, will receive proofs of claims against the three defendants corporations from all creditors up to November 9. These claims will be filed with the court on November 11, and 10 days will be allowed for the filing of exceptions to any of them by creditors, lack of such exceptions being accepted as proof of a claim. Notices have been sent to all creditors and stockholders of the mills. At the expiration of the extended term of receivership, Judge Smith will consider a further extension together with whatever means he may deem suitable for an ultimate sale of the mill property.

In the meantime, the mill will continue to operate under the direction of the receivers appointed by the court originally on September 26. George R. Spofford of Bath, and G. R. Lombard of Augusta, Ga. In

order to supply running expenses for the concerns, during the period of appraisal, additional receivers' certificates may be issued by the receivers totalling, in the case of the Langley Manufacturing company, \$43,000; in the case of the Aiken Manufacturing company, \$31,500, and in that of the Seminole Manufacturing company, \$23,900. The bonds of the two receivers filed with the court in accordance with the order of September 26, were continued. This amounted in each case to \$50,000; \$30,000 each in the case of the Langley Manufacturing company, receivership, and \$10,000 each in each of the other cases.

Anderson, S. C.—The supply of burlap, which is imported from Calcutta, being limited, the price of burlap bags used in putting up cotton seed meal has jumped from \$60 to \$90 per thousand.

Knowing that bags manufactured of cotton would give just as good service and that they could be made for less money, Mr. T. Q. Anderson of the T. Q. Anderson Bag and Tire company of this city, equipped his plant with machinery to make these bags out of cotton.

Mr. Anderson says that his plant has a daily capacity of 10,000 bags, and that he has been putting them on the market at \$60 per thousand, f. o. b. Anderson. He has received orders for large quantities of them from Memphis and from points all over the south. Especially has his business from North Carolina points been good.

Mr. Anderson says that he is prepared to manufacture grain bags out of cotton, and he anticipates a big business along this line. It takes a bale of cotton to manufacture 1,000 bags, and this will greatly increase the consumption of cotton.

Mr. Anderson says that a cotton oil mill uses about 25,000 cotton seed meal sacks during a season. During June and July many of the mills over the south placed orders for burlap bags, and some shipment of these bags were made. The mills now are using what burlap bags they received, but the supply is giving out, and Mr. Anderson says the demand for cotton bags manufactured by him will grow as the seed crushing season progresses.

The cotton bags manufactured in Anderson are the same in size as the regular burlap bags—22 inches by 36 inches. It is believed that the use of the cotton bags will be so satisfactory that the oil mills will adopt cotton bags for all the time.

National Cotton Fashion Show.

Washington, D. C.—The National Cotton Fashion Show was held in the New Willard Hotel, with many members of the official circle in attendance. The room was decorated with smilax and laurel wreaths, festoons of cotton balls and cotton flags.

The fair is intended primarily to help the South to dispose of its sur-

plus of 5,000,000 bales of cotton, by stimulating the demand for cotton goods.

Among the women who are taking active part in the fair are Miss Genevieve Champ Clark, daughter of the Speaker; Miss Lucy Burleson, daughter of the postmaster general; Miss Callie Hoke Smith, daughter of Senator Hoke Smith, of Georgia; Miss Sallie Williams, daughter of Senator Williams, of Mississippi; Miss Mabel Stone, daughter of Senator Stone, of Missouri; Miss Nancy Johnson, daughter of Representative Johnson, of Kentucky; Miss Margaret McChord, daughter of Interstate Commerce Commissioner McChord; Mrs. Josephus Daniels, wife of the secretary of the navy, and Mrs. Duncan U. Fletcher, wife of Senator Fletcher, of Florida.

Mrs. William Randolph Hearst, Mrs. George Harvey and Mrs. Hoke Smith have recently been added to the list of patronesses.

Some of the exhibits were as follows: There is a freight car loaded with cotton bales by the Southern Railroad. Other exhibits are: S. Kann, Sons & Co., dresses and blankets; Henrietta Mills, sheeting; Cannon Manufacturing Co., Turkish towels; Holt Morgan Mills, cotton dress goods, zephyr; Saxon Mills, cotton dress goods; Dunnean Mills, shirtings, dress goods, gingham checks and stripes; Lawrence F. Holt & Sons, gingham; Hope Mills Manufacturing Co., voiles, gingham and zephyrs; Gibson Manufacturing Co., silk cord; Rosemary Manufacturing Co., cotton damask; Concord Mill, towels; Carolina Cotton and Woolen Mills, cotton blankets; Durham, hosiery.

Some of the models noted were: Mrs. Josephus Daniels, redingote of blue cotton with blue black and gray black velveteen skirt. Another gown was of taupe voile worn over old rose voile and ecru lace. Miss Callie Hoke Smith, gown of green crepe, skirt and bodice with shoulder straps, sleeves printed voile, lace fichu. Many Girkhead was costumed in a waist of embroidered cotton voile with black satin neckwear. Mrs. Champ Clark wore a gown of white, embroidered bodice and tunic, accordion plaited skirt, black satin sash, lace fichu. Mrs. Timothy T. Ansberry gown of heavy white crepe, peplum both sides, black satin sash, collar and skirt, crepe tunic.

Miss Margaret McChord wore a white embroidered net, no sleeves, silk skirt with net tunic and green girdle. Miss Genevieve Clark's gown was of pink crepe with black velvet sash. Miss Nancy Johnson's gown was of embroidered white crepe with lace sleeves and violet moire sash. Mrs. Charles M. Lewis wore a gown of printed voile, with plaited tunic and black velvet sash. Miss Lucy Burleson wore a gown of embroidered cotton voile, lace trimming and satin girdle.



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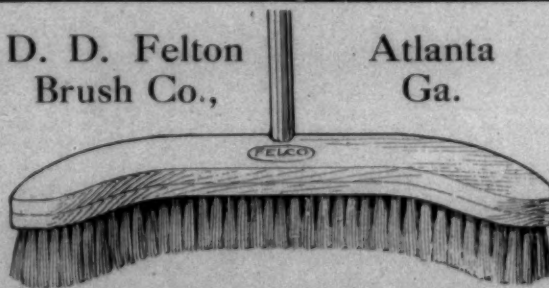
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Program For Textile Association.

The semi annual meeting of the Southern Textile Association which is to be held in Birmingham, Ala., November 13-14.

First Session.

Address of welcome on behalf of the city of Birmingham by Judge A. O. Lane, City Commissioner of Birmingham.

Address of welcome on behalf of the Birmingham Chamber of Commerce by Mr. Paschal G. Shooks, president of the Birmingham Chamber of Commerce.

Address of welcome on behalf of the Alabama Cotton Manufacturers by Mr. Scott Maxwell, Cordova, Ala., president of the Alabama Cotton Manufacturers' Association.

Response to the address of welcome by Mr. Joe E. Brendle of Lowe Manufacturing Company, Huntsville, Ala.

President's semi-annual address by Mr. E. E. Bowen, Greer, S. C., president Southern Textile Association.

Address by Mr. S. J. McCaughrin of Young & Vann Supply Co., Birmingham, Ala. Subject: "Ich Dien." General discussion.

Second Session.

Address by Mr. J. T. Rose, Treasurer W. R. C. Smith Publishing Company, Atlanta, Ga. Subject: "The Textile Industry of the South."

Illustrated lecture by Dr. E. H. T. Foster, Charlotte. Subject: "The Y. M. C. A. a Factor in the Textile Industry."

Address by (not filled). Subject: "Relation of Employer to Employee." General discussion. (Same as Friday.)

Auto Runs Down Mill Worker.

An automobile, driven by Howard Stroupe and having Rev. and Mrs. J. O. Erwin as passengers, ran over G. W. Maner, an employee of the Elizabeth Cotton Mill, Charlotte, Sunday, and very seriously wounded him. Mr. Maner had his left leg broken below the knee, his right leg cut and his head slightly fractured. He is a man of about 56 years of age and has a wife and four children residing near the Elizabeth Mill.

The accident occurred about 5 o'clock. Just beyond the Elizabeth Mill, in turning to dodge another machine, the car and Mr. Maner collided, Mr. Stroupe stating that the injured man staggered in front of his machine, and that he could not avoid striking him. He was rushed to the Presbyterian Hospital where his injuries were treated. The attending surgeons last night were very apprehensive lest it be necessary to amputate the left leg below the knee, the bone being badly crushed.

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Cotton Goods Report

New York.—The staple cotton goods market showed signs of improvement last week and though business is not large in any quarter the tendency to buy seems more marked. The mills are hoping to see cotton placed on a basis where it will be safe for them to cover their needs for future business. At present few mills wish to take the chance of covering ahead on raw material and are thereby handicapped on making prices on their goods, for forward delivery. Prices are irregular and are thought too low on some lines and not low enough on others. Considerable readjustment of prices took place last week and this is still going on.

Prints are quiet and are not being pushed. Prices on these goods have declined to where they can hardly go lower even if cotton went as low as six cents a pound. Converters and printers are staying out of the market until further developments. They are feeling the scarcity of dyestuffs and are not encouraging future orders because of the fact that they are not able to secure dyes that are now wanted.

The market was considerably strengthened by export orders last week, and new orders are now in the market for 4-yard 80x80s for cotton underwear. Supplies have been pretty well cleaned up by orders for cotton for long hospital shirts. The blanket market is in good shape and is further strengthened by large orders coming in. It was estimated that orders for French hospital purposes last week amounted to \$900,000. The blankets being called for weight three pounds each, 40x50 inches in size must be made of a mixture of cotton and wool, without any shoddy. Considerable quantities of horse blankets are also being ordered.

There was more trading in cotton cloths last week. Converters who use sateens bought some goods on the basis of values, and offerings of goods were more plentiful. Sheetings for manufacturing and converting purposes were offered at very low prices. Narrow prints very slow.

Some of the declines in the prices of gray goods are given here. When the market closed a week ago Saturday, 39-inch 68-72s were selling at 4 5-8 cents. During the last week they sold at 4 1-2 cents; today the price is 4 5-8 cents asked. In a week 28-inch standard print cloths have declined from 3 5-8 to 3 1-4. Twenty-eight inch 64-60s from 3 1-4 to 7 2-8 cents. Twenty-seven inch, 64-60s 2 7-8 cents to 2 3-4 cents; 39-inch 68x76s, four-yard, three-leaf twills have declined from six cents asked to 5 1-2 cents; 36-inch 64-80s, 5.10 sateens have declined from 5 3-8 to 4 3-4 cents; 43-inch 72-120s, 3.35 sateens have declined from 9 1-4 cents to 9 cents.

Last week the trading in the Fall River print cloth market continued light, with practically no change from the previous week. Total sales were about 70,000 pieces. Prices

showed further declines. Most of the business put through was made up of spot and nearby sales and there was very little inquiry for future contracts. Buyers did not show interest except in the goods they actually needed. They asked concessions and in most cases manufacturers granted them in order to move their stocks. Wide and medium goods comprised most of the sales. Taken as a whole market conditions in Fall River remain practically the same as they have been for the past two months. The only change noted is that prices have gone lower.

In New York cotton goods were quoted as follows:

Print cloth, 28-in., std 3	3 1-4
28-inch, 64x60s...	2 7-8 3
4-yard, 80x80s...	5 7-8 ..
Gray goods, 39-inch	
68x72s	4 5-8 ..
38 1-2-inch, 64x64s.	3 7-8 4
Brown drills, std...	7 3-4 4
Sheetings, souther std	7 1-2 ..
3-yard, 48x48s	6 1-4 ..
4-yard, 56x60s	4 7-8 5
4-yard, 48x48s	5 1-4 ..
4 1-2-yard, 44x44s	4 5-8 ..
5-yard, 48x52s	4 3-8 ..
Denims, 9-ounce	13 1-2 17
Siark, 8 1-2-oz., duck...	14 ..
Hartford, 11-ounce, 40-	
in., duck	16 1-2 ..
Ticking, 8-ounce	13 ..
Standard, fancy print	5 1-4 ..
Standard, gingham...	6 1-4 ..
Fine dress gingham...	9 9 1-4
Kid finished cambrics	3 3-4 4

Hester's Weekly Statement.

Comparisons are to actual dates not to close of corresponding weeks. In 1000 bales.

In sight for week	323
Same days last year	552
Same 7 days year before	570
For the month	413
Same date last year	723
Same date year before	780
For season	1,205
Same date last year	2,790
Same date year before	2,665
Port receipts for season	614
Same date last year	2,094
Same date year before last	1,927
Overland mills and Canada for season	25
Same date last year	65
Same date year before	49
Southern mill takings for season	262
Same date last year	447
Same date year before	475
Interior stocks in excess of August 1	305
Same date last year	184
Same year before	245
Foreign exports for week	88
Same 7 days last year	191
For season	227
Same date last year	1,383
Northern spinners' takings and Canada for week	44
Same 7 days last year	76
For season	203
To same date last year	349



WE MAKE THE BEST

Spinning and Twisting **TRAVELERS** Of Every Description

AMOSIM. BOWEN, Treas.
Providence, R. I.

Southern Representative
MATTHIAS OUSLEY, Jr.
Box 126, Greenville, S. C.

GRINNELL WILLIS & COMPANY

44-46 Leonard Street, New York

SELLING AGENTS

BROWN AND BLEACHED COTTON GOODS FOR HOME EXPORT MARKETS

RICHARD A. BLYTHE

(INCORPORATED)

Cotton Yarns Mercerized and Natural

ALL NUMBERS

505-506 Mariner and Merchant Building

PHILADELPHIA, PA.

The Desirability of the South

as the place to manufacture cotton goods is illustrated in the increase of 67% quoted by census department. We can offer attractive situations for those desiring to enter this field.

J. A. PRIDE

General Industrial Agent, Seaboard Air Line Railway

NORFOLK, VIRGINIA.

BOSSON & LANE

Manufacturing Chemists

Specialties for the Textile Trade

Works and Office

ATLANTIC, MASS.

The Yarn Market

Philadelphia, Pa.—The yarn market continues quiet here, and though there have been some sales of fairly large lots of both weaving and knitting yarns, the general business has not been large. A little buying has been done for future delivery in such cases where prices impressed the buyers as being cheap. Last week there were some sales of from 25,000 to 50,000 pounds, but in most cases the quantities sold were small. As a whole, deliveries are said to be poor, and collections continue slow.

In the underwear trade business is quiet. Very little new business is coming in and it is generally thought that jobbers are staying out of the market to force prices downward. The hosiery situation is not active, though some improvement is seen in spots. The need of business seems to be greater with makers of carded yarn hosiery, than with those who use combed yarns. The sales last week were usually limited to a few cases of yarns, with a few larger orders as exceptions. Prices were soft and there were no indications that tend toward better conditions for some time to come.

The demand for single combed yarns is better than for the two-ply. There was a fair demand last week for single yarns 26s to 28s from knitters for underwear and other numbers for hosiery. Making sales depended on the price quoted. Two-ply combed yarns were not in much demand. Makers of combed two-ply hosiery, who have orders, appear to be well covered on yarns and their buying was limited to a few small lots to fill in with.

Weavers are buying little yarn for future delivery. They seem to be well covered until after the first of the year, and the buying last week was confined to small lots for prompt or spot delivery. Prices were very irregular.

Southern Single Skeins.

4s to 8s	15	—
10s	15	—
12s	15	1-2
14s	16	—
16s	16	1-2
20s	17	—
24s	18	—
26s	18	1-2
30s	19	1-2-20

Southern Two-Ply Skeins.

8s	14	1-2
10s	15	—
12s	15	1-2
14s	15	—16
16s	15	—16
20s	17	—
24s	18	—18 1-2
26s	18	1-2-19
30s	19	1-2-20
40s	25	—
50s	29	—30
60s	36	—38

Southern Single Warps.

8s	15	—15 1-2
10s	15	1-2

12s	15	1-2-16
14s	16	—16 1-2
16s	16	1-2-17
20s	17	—
24s	18	—
26s	18	1-2
30s	20	—
40s	25	—25 1-2
50s	30	—

Southern Two-Ply Warps.

8s	15	—15 1-2
10s	16	1-2
12s	15	1-2-16
14s	16	1-2
16s	16	1-2-17
20s	17	—17 1-2
24s	18	1-2
26s	19	—
30s	20	—
40s	25	—26
50s	30	—

Southern Frame Spun Yarn on Cone.

8s	15	1-2
10s	16	—16 1-2
12s	16	1-2-17
14s	17	—17 1-2
16s	17	1-2-18
18s	17	1-2-18
20s	18	—18 1-2
22s	19	—
24s	19	1-2
26s	20	—
30s	20	—21

Carpet and Upholstery Yarn in Skeins.

9-4 slack	16	—
8-4 slack	15	—15 1-2
8-3-4 hard twist	14	—14 1-2

Two-Ply Carded Peeler in Skeins.

22s	19	—
24s	19	1-2-20
26s	20	—20 1-2
30s	21	—
36s	22	—
40s	26	—
50s	30	—31
60s	37	—29

Two-Ply Combed Peeler Skeins.

20s	24	1-2-25
24s	26	—
30s	29	—29 1-2
40s	36	—38
50s	41	—45
60s	47	—51
70s	57	—60
80s	66	—70

Cotton For Packing.

A bale of cotton, raised by J. E. Attaway of near Saluda, is now on exhibition in the windows of the Wheeler Hardware company, which is packed in white duck cloth. On it is the sign, "Pack your cotton in cotton." It makes a very pretty sight, the white cotton packed in white cloth. It is believed that the farmers should use their own product in packing their cotton, and age farmers to use cotton bagging instead of jute.—Columbia State.

F. C. Abbott & Co.

Charlotte, N. C.
BROKERS

Southern Mill Stocks, Bank Stocks
N. C. State Bonds, N. C. Railroad Stock and Other High Grade Securities

Southern Mill Stocks.

	Bid	Asked
Abbeville, com	85	...
Aragon	49	...
American Spinning, com	150	...
Alpine, pfd	100	...
Alta Vista	86	...
Armstrong	100	...
Anderson Mill	...	...
Arcadia, S. C., pfd	94	...
Arlington	136	...
Brown, com	120	...
Brown, pfd	100	...
Cannon	125	...
Cabarrus	120	...
Chadwick-Hoskins, pfd	100	...
Chadwick-Hoskins, com	...	...
Chronicle	100	...
Clara	...	...
Cliffside	190	195
Columbus Mfg.	85	...
Dixie Cotton Mill, N. C.	60	...
Dakota	125	...
Elba Mfg. Co., pfd	100	...
Entwistle Mfg. Co.	100	115
Elford, N. C.	110	...
Erwin, com	155	...
Erwin, pfd	102	105
Easley	175	...
Flint	200	...
Florence	...	...
Gaston Mfg.	85	...
Gaffney Mfg. Co.	57	...
Gibson	100	...
Gibson pfd	100	...
Glenwood	96	...
Gray Mfg. Co.	125	...
Henrietta	117	125
Highland Park	200	203
Highland Park, pfd	102	...
Imperial	136	...
Kesler	161	...
Lancaster Cotton Mills	...	...
Lancaster Mills, pfd	95	...
Limestone	150	...
Loray Mills pfd	85	...
Loray, com	10	...
Lowell	200	...
Marion	75	...
Marlboro Cotton Mill	50	57½
Majestic	150	...
Modena	105	...
Ozark	110	...
Paola	70	...
Pacolel, com	100	103
Pacolel, 1st pfd	100	103
Parker, common	5	10
Parker Mills, pfd	30	...
Parker Mills, guaranteed	87½	...
Patterson	129	...
Poe Mfg. Co.	90	101
Piedmont Mfg. Co.	145	...
Salisbury	150	...
Roberde	160	...
Raleigh Cotton Mill	85	...
Steele Cotton Mill	105	...
Spartan Mill	110	...
Vance Mills	107	...
Victory Mfg. Co.	60	...

Ware Shoals	70	75
Washington Mills	10	...
Washington Mills, pfd	100	...
Woodlawn	121	126
Woodside Mills Co., guar.	100	...
Woodside, pfd	80	...
Woodside, com	37½	...
Wiscassett	126	...
Williamston, com	100	...
Williamston, pfd	90	...
Young-Hartsell	90	...

When the War is Over.

(Continued from Page 7.)

lection to a considerable number of British industries.

In this connection the valuable support which the overseas dominions of the British Empire are now rendering in the great conflict would operate to give great weight to the claims of those dominions for preferences in the adjustment of the new tariffs which may be adopted by the United Kingdom. The placing of a tariff on any imported manufactured product by the United Kingdom would almost surely be felt by some American exporting interests.

Another customs tariff matter is the domestic one. With the present cutting off of supplies of certain manufactured products heretofore imported, chiefly because the present tariff did not offer sufficient encouragement for their production here, the manufacturer who would wish to undertake their production would necessarily have to consider the possibility of the war being terminated within a short period and then being subjected to keener competition than would otherwise be the case. If on the other hand the war should be prolonged, the cost of manufacturing in European countries when peace is proclaimed and industries again resumed would be greatly increased on account of the wastage of war in material and men, so that a similar business in the United States carefully built up and conducted might have a fair opportunity of successfully competing in the home market without radical tariff changes. Another problem which will be pressed upon the United States at the close of the war is that of increased immigration, as it is only fair to expect that industrial and social conditions in this country in every respect will then be in still greater and more favorable contrast to those of European countries, particularly those in which the war operations are or may be carried on, and that immigrants in greater degree than ever before will flock to our shores.—By William M. Benney, in American Industries.

"The earth was made for man," quoted the Sage.

"Yes," agreed the Fool, "but the trouble is that every man thinks he is the man."—Ex.

Suspicious.

Denny McCarthy who lives out near the ball park, is a believer in large families. He took his out for a walk to Mill Mountain one day. Some distance from home he was stopped by a policeman, who asked: "Whatcha been doin'?"

"Nothin'," said McCarthy.

"Well, then, what's the crowd following ye fer?"—Ex.

Personal Items

A. C. Keener of Rhodhiss, N. C., has accepted a position at the Ivey Mills, Hickory, N. C.

O. W. Whatley has resigned as overseer of weaving at Calhoun, Ga., to accept a similar position with the Union Cotton Mills, LaFayette, Ga.

Harry L. Bailey, general manager of Wellington Sears & Co., is spending some time at Anderson, S. C., in connection with the Equinox Mills.

E. L. Jones, of Simpsonville, S. C., has accepted a position as overseer of slashing at the Woodside Mills, Greenville, S. C.

J. H. Garrett has resigned as overseer of carding at the Elizabeth City (N. C.) Cotton Mills to accept a similar position at the Profile Mill No. 1, Jacksonville, Ala.

Two Boys Killed by Train.

Catching a freight train to ride out to their homes, about a mile north from the Concord station, on Oct. 11, Harry Huffstickler and Roy Cress, 10-year-old sons of cotton mill families, dropped off the freight under the engine of southbound passenger train No. 37 and were instantly killed.

The train stopped and picked up the bodies and brought them here, where they were placed in a local undertaking establishment.

With young Cress and Huffstickler was a third boy, Clyde Seeman, who was not hurt.

Arcade-Victoria Mill Fair.

The second annual fair of the Arcade and Victoria Mills, was held at Rock Hill, S. C., last Saturday, October 10th. The attendance was good and the occasion was a marked success in every way.

The first feature of the day was a parade of all of the workers of the two mills. This was followed by a number of speeches by prominent men. Among those who made addresses were E. J. Watson, Commissioner of Agriculture and Industrial Arts, of South Carolina. W. W. Long, State Agent of Demonstration Work, D. B. Johnson, president of Winthrop College, Joe Sparks, of the Columbia State, Alex Long, president of the Arcade and Aragon Mills, W. J. Roddey, president of the Victoria Mills, and others.

The exhibits at the fair included those in Culinary Art, Art Needle Work, Quilts, Bed Spreads, Canned Goods by the Tomato Club, Pot and Cut Flowers, Vegetables, Poultry, Live Stock, Mechanical Arts, Arts and Crafts. Prizes were awarded for the best exhibits of the above.

A long list of athletic events concluded the program of the day.

North Carolina Mills Made Fine Show.

At the National Cotton Fashion Show at Washington, D. C., the goods from North Carolina mills attracted a great amount of attention. Among the goods shown are:

Dress goods from the Holt-Granite Mills, Haw River; Highland Park Manufacturing Company, Charlotte, and Bellwill Mills, Wilmington.

Fine dress gingham, Holt-Morgan Mills, Fayetteville.

Blankets, Carolina Cotton and Woolen Mills, Spray.

Dress patterns, L. Banks Holt Manufacturing Company, Graham.

Progress gingham, Caraleigh Mills, Raleigh.

Ginghams and chevrons, Highland Park Manufacturing Company, Charlotte.

Crinkled seersucker gingham, E. M. Holt Plaid Mills, Burlington.

Cannon cloth and towels, Cannon Mills, Concord.

Hosiery, Durham Hosiery Mills, Durham.

Plaid dress gingham, Aurora Cotton Mills and Lawrence S. Holt's Sons, Burlington.

Plaids, Virginia Cotton Mills, Swepsonville.

Dress patterns and waffle cloth, Travora Manufacturing Company, Graham.

Table damasks, Rosemary Manufacturing Company, Rosemary. Cone Export & Commission Co., Greensboro.

Fine combed yarns, Gray Manufacturing Company, Gastonia.

Madras, fine gingham, Gibson Manufacturing Company, Concord.

Cotton fabrics and dress goods, Hope Mills Manufacturing Company, Hope Mills.

Cotton cloth, Loray Mills, Gastonia.

Curtain goods, Kings Mountain Mills, Kings Mountain.

Plaid gingham, Durham Cotton Manufacturing Company, Durham.

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Dr. William Allan,
Charlotte, N. C.

Dear Sir: The North Carolina Child Labor Committee will appreciate it very much if you will be so kind as to give your professional reply to the following questions:

1. Is it probable that the employment of children under 14 years of age in mills factories, stores and other public or private buildings for 10 or 11 hours a day will be injurious either to the race or to the child?

2. Is there any reason why it would be more injurious to girls than to boys?

3. In your opinion would it be wise to forbid by law the employment of any child under 14 in any mill, factory, store or other similar place?

4. In your opinion would it be wise to forbid by law the employment of any child under 10 years of age in any mill, factory, store, or other similar place for more than eight hours in any one day?

5. In your opinion would it be wise to forbid by law the employment of any child under 16 at any occupation declared by the State Board of Health to be dangerous to life of limb?

The following question, of course, does not appeal to you so much in a professional way as to you as a citizen of the State. We shall be glad, however, to have your answer.

6. Should the State empower the Commissioner of Labor and Printing to enforce all Child Labor Laws, and should inspectors be given him for this purpose?

We shall be glad to have you say anything further which you may deem wise or helpful.

This is a general letter to physicians. May I make public use of your reply if I wish to do so?

Yours truly,

W. H. Swift.

Greensboro, Sept. 21.

This is the answer:
North Carolina Child Labor Committee,
Greensboro, N. C.

Gentlemen: I am in receipt of your circular letter of September 21 asking me to answer categori-

cally six questions, which to my mind touch only one side of the child labor problem. As field officer of the Associated Charities of this place in 1910, I took a good many records of families composed of a mother either widowed or deserted, with a family of children from 16 years to nursing babies; a number of these families had no relatives to fall back on, and the only support or partial support of the family had to come from the oldest children, who under normal conditions should have been in school.

In the instances in which these families are broken up and the children put into institutions, I think great harm is done. I have spent part of my life in such institutions.

As a general proposition, of course children should go to school instead of working; but a child labor law without any provision for widows (any type) with dependent families, is, to my mind, very unintelligent legislation. Yours truly,

William Allan.

P. S. I shall be glad to further your plans in any way that I can, if you will tell me what you hope to do, but I don't wish to endorse a blanket child-labor law. You may make any use of this reply you wish.

The Cleaning of Textile Machinery by Means of Compressed Air.

(Continued from Page 4.)

veniently make the change from the old type equipment to the new by the simple process of replacing the male coupling end now attached to their valves or outlets by a nipple screwed into a quick-hitch coupling.

By putting on a leader or short length of modern hose equipped with a "quick-hitch" coupling at one end and one of their original couplings at the other, and attaching one of these leaders to each length of hose, the mill will then be possessed of all the advantage of the "quick-hitch" coupling. As fast as their old hose becomes unfit for use and requires replacement, the use of the new type of hose and couplings may become automatic.

Organization.

In small departments, special organization is not necessary, as any ordinary operative can readily learn to use the apparatus. In large departments, however, it will be good economy to establish a special cleaning organization, limiting the use of the apparatus to those specially designated.

The cleaning operatives will thus become highly skilled and more efficient than the ordinary operative, with resultant reduction in the payroll.

Cost of Installation.

When compressed air humidifiers are available or about to be installed, the cost of air cleaning is very slight, as the mains for the two systems will be identical.

The cost of an independent installation for cleaning will of course vary with local conditions, but the returns will amply justify the expense. —A. W. Thompson, in the Fog Horn.

**Diamond Roving Cans
Diamond Fibre Trucks
Diamond Doffing Boxes**



Diamond State Fibre Co., Elsmere, Del.

Southern Representatives, PEARSON & RAMSAUR, GREENVILLE, S. C.

SCOTCH SIZE OR KLEISTER



THIS IS an old preparation, well known to the majority of Cotton Manufacturers, on account of the general satisfaction it has always given. A binder for both fine and coarse counts as it combines

readily with any starches, lays the surface fibre and holds the size well on the yarn. Manufacturers of exports and denims find it valuable, as it reduces shedding and loom waste to a minimum. Should use Raw Tallow or Soluble Tallow in addition. Write for formula.

ARABOL MANUFACTURING COMPANY

100 William Street, New York

CAMERON McRAE

Southern Sales Agent

CHARLOTTE, N. C.

Want Department

Want Advertisements.

If you are needing men for any position or have second hand machinery, etc., to sell the want columns of the *Southern Textile Bulletin* affords the best medium for advertising the fact.

Advertisements placed with us reach all the mills and show results.

Employment Bureau.

The Employment Bureau is a feature of the *Southern Textile Bulletin* and we have better facilities for placing men in Southern mills than any other journal.

The cost of joining our employment bureau is only \$1.00 and there is no other cost unless a position is secured, in which case a reasonable fee is charged.

We do not guarantee to place every man who joins our employment bureau, but we do give them the best service of any employment bureau connected with the Southern textile industry.

Wanted.

A Northern man, at present employed as superintendent, would like to correspond with some mill who wants to employ a hustler who can get results. 30 years practical experience, a good carder, an expert weaver and finisher, and a good mechanic. Thoroughly experienced on white or colored, fine or medium work. Married, moral and strictly temperate. All correspondence considered strictly confidential. Address Supt., care Southern Textile Bulletin.

Section Beams For Sale.

For Sale 24 section beams. 26 in. heads, 54 inches wide. In good condition. Price \$6.50 each f. o. b. cars at North Carolina point. Address Box 903, Charlotte, N. C.

Mill Building For Sale.

Standard construction mill building for sale. Located in small town with good labor supply. Building is modern in every detail and can be purchased with or without steam plant and shafting. Can be purchased on small cash payment and remainder on long time. Well adapted for small weaving or knitting plant. Address Box 903, Charlotte, N. C.

WANT position as overseer carding. 15 years experience. Good references as to character and ability. Address No. 830.

WANT position as superintendent of either yarn or weave mill or carder in large mill. Now employed, but want larger job. Good

experience and references. Address No. 831.

WANT position as superintendent of small mill or overseer of spinning in large mill. Am a practical mill man and can give fine references. Address No. 832.

Owing to the health of my family I desire to make a change. Am a practical superintendent on either white or colored goods. Would accept traveling position with a line of mill supplies or warp sizing and finishing compound. Am 42 years of age and have good ref-

erence to offer. Address No. 833.

WANT position as carder. I am now employed as carder and know how to watch my cost and my room. Reason for wanting to change will be furnished upon request. Address No. 834.

WANT position as overseer of dyeing. Long experience on warps and raw stock, all colors. Good manager of help and can furnish good references. Address No. 835.

WANT position as superintendent of either yarn or weaving mill. Have 20 years' practical experience in carding and spinning on all kinds of yarns, both combed and carded. Am fine on print cloths. Can furnish best of references. Address No. 836.

WANT position as overseer spinning or second hand in large room. 5 years as overseer. Age 36. Married. References from present and former employers. Address No. 837.

WANT position as superintendent or carder and spinner. Especially experienced in card room. Can give fine references and good reason for wanting to change. Address No. 838.

WANT position as overseer weaving and designing. Graduate of textile school and have had long experience. Best of references, both as to character and ability. Address No. 839.

WANT position as carder. Have a wide experience in carding on fine and coarse numbers. 38 years of age. Married, sober and believes in running a room up-to-date. References if required. Can change on 10 days' notice. Address No. 840.

WANT position as overseer carding or spinning in good mill in N. C., S. C., or Ga., at not less than \$3.00 per day. Age 38. Married. Best of references from present and former employers. Address No. 841.

WANT position as carder and spinner. 35 years old. 23 years experience. 15 years as overseer. Prefer a large card room. Good references. Address No. 842.

WANT position as superintendent of small mill or spinning in large mill. Married. Age 30. At present employed but would change for more money. Good references. Address No. 843.

WANT position of superintendent. Recently resigned for personal reasons position as superintendent which I held for a number of years, during which time mill never failed to make good profits each year. Fine references. Address No. 844.

WANT position as carder or earler and spinner. Have had long experience especially in carding and can give satisfaction. Now employed. Address No. 845.

WANT position as superintendent of yarn or plain weaving mill. Age 37. Sober. Energetic. Married. Present position overseer of carding. Would consider large card room. Address No. 846.

WANT position as superintendent of 10,000 to 20,000 spindle mill in N. C. or S. C. Age 48. Have 30 years experience on wide variety of white and colored goods. Have been superintendent for 20 years and am now employed. Strictly sober. Good references. Address No. 847.

WANT position as superintendent. Now employed. Have twelve years experience as carder, spinner and superintendent. Have held present position as superintendent three years. Prefer yarn mill. First-class references. Address No. 848.

WANT position as superintendent of yarn or plain weaving mill. Age 35. Have 24 years mill experience. Long experience as carder and spinner and superintendent. Good references. Address No. 849.

WANT position as overseer of weaving. Have had experience on two to six harness work, both heavy and light on all makes of looms. Can furnish best of references as to character and ability. Address No. 850.

WANT position as superintendent. Now employed as superintendent of colored goods mill, but also experienced on white goods. Can furnish good references, both as to character and ability. Address No. 851.

WANT position as overseer of spinning. Have had long experience as overseer in good mills and can furnish satisfactory references. Address No. 852.

WANT position as superintendent. Long experience both as carder and superintendent on both yarn and weaving mills. Can give satisfactory references. Address No. 853.

WANT position as overseer of spinning in North or South Carolina at not less than \$3.00 per day. 42 years as overseer. Have held present position 7 years and can furnish best of references. Address No. 854.

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Send your business direct to Washington. Saves time and insures better service.

Personal Attention Guaranteed

30 Years Active Service

SIGGERS & SIGGERS

Patent Lawyers

Suite 34 N. U. Washington, D. C.

WANT position as second hand in weaving in a large mill, or overseer of a small one. Age 35. Long experience as second hand on Stafford and Draper looms. Good references as to character and ability. Address No. 855.

WANT position as overseer of spinning and winding. 19 years experience in spinning and winding. Age 29. Employed as overseer at present. Can furnish good references. Address No. 856.

WANT position as superintendent in small mill or as carder in large mill. 16 years experience on white and colored work. Good manager of help. Strictly sober. Best of references. Address No. 857.

WANT position as superintendent of small mill or overseer of carding and spinning in large mill. Now employed but prefer to change. Long experience. Good references. Address No. 858.

WANT position as overseer of cloth room. Have had long experience on both fine and white goods and can furnish best of references. Address No. 859.

WANT position as overseer spinning. Have had long experience and handled large rooms successfully. Can furnish first-class references from former employers. Address No. 860.

WANT position as superintendent or overseer of weaving. Five years overseer of weaving and two years as superintendent. Can furnish good references. Address No. 861.

WANT position as overseer weaving. Have had long experience, especially on colored and fancy goods. Can give former employers as reference. Address No. 862.

WANT position as overseer of spinning. Now employed as overseer of winding, but prefer spinning room. Have had long experience and can furnish satisfactory references. Address No. 863.

WANT position as superintendent. Have been assistant superintendent of large mill and have had long experience on both colored and white goods. Fine references. Address No. 864.

WANT position as superintendent. Have had long experience both as overseer and as superintendent (Continued on next Page.)

and as especially strong on carding. Now employed. Good references. Address No. 865.

WANT position as superintendent or manager. Am well educated and have had considerable practical experience. Now employed and can furnish fine references. Address No. 866.

WANT position as superintendent or general manager. Have good experience on both white and colored goods and am good manager of help. Fine references. Address No. 867.

WANT position of overseer of carding or spinning or both. 18 years experience in both. Nothing less than \$2.50 considered. Good references both as to character and ability. Address No. 868.

WANT position as overseer of weaving. Age 33. Now employed but have best of reasons for wanting to change. Can furnish good references. Address No. 869.

WANT position as superintendent or carder and spinner. 16 years experience in those positions and am now employed. Can furnish best of references. Address No. 870.

WANT position as overseer of weaving. Have had 15 years experience as such on sheetings, drills, duck and osnaburgs. Can give good references. Or will take position as traveling salesman for a sizing compound firm. Address No. 871.

POSITION as superintendent wanted by first-class man with 10 years experience as superintendent. Experienced on sheeting and drills for export and converters trade. Am also first-class duck manufacturer. Age 42. High class references. Address No. 872.

WANT position as overseer of carding in N. C., S. C., or Ga., at not less than \$3.00 per day. 12 years experience as overseer of carding on both white and colored. Can furnish best of references. Address No. 873.

WANT position as superintendent of either spinning or weaving mill. Have had long experience and am now employed. Fine references. Address No. 874.

WANT position as superintendent or overseer of spinning. Have had long experience in good mills and can furnish fine references. Address No. 875.

WANT position as superintendent. Have had long experience and am now employed. Especially strong in carding department, but experienced in all. Address No. 876.

WANT position as overseer of carding. Have had long experience on both coarse and fine work and can give satisfactory references if desired. Address No. 877.

WANT position as overseer of spinning or carding and spinning on either white or colored work. Have had good experience and can furnish satisfactory references. Address 878.

WANT position as overseer of carding and spinning in small mill or overseer of spinning in a large mill at not less than \$3.00 per day. Age 35. Good character and habits. Long experience. Address No. 879.

WANT position as superintendent of yarn mill. Have had several years experience as superintendent and can furnish good references. Address No. 880.

WANT position as superintendent of small mill on yarns or plain weaving. Now employed as carder and spinner and giving entire satisfaction, but am competent for superintendent's position. Good references. Address No. 881.

WANT a position as superintendent or as carder and spinner. Now employed but for good reasons prefer to change. Can furnish references from former employers. Address No. 882.

WANT position as master mechanic. 20 years experience and can furnish fine references. Have 2 doffers and 1 spinner. Strictly sober. Address No. 883.

WANT position as overseer of spinning or as second hand in large mill. Age 32. Strictly temperate. 15 years experience on yarns from 12's to 8's. Good references. Address No. 884.

WANT position as overseer of carding. Have had 14 years experience and am now employed but prefer larger job. Fine references. Address No. 885.

WANT position as overseer of carding. Am experienced on both coarse and fine numbers, white and colored. Prefer Ga. or S. C. Sober. Good manager of help. Satisfactory references. Address No. 886.

WANT position as overseer of spinning or carding and spinning. Married and strictly sober. 16 years experience. Am also a technical graduate of the I. C. S. Nothing less than \$4.00 per day will interest me. References. Address No. 887.

WANT position as superintendent of yarn mill. Long practical experience on all classes of yarns from 4s to 180s. Also experience on automobile tire and similar fabrics. Fine references. Address No. 888.

WANT position as superintendent, overseer weaving, or traveling salesman. Have had experience in such positions and can furnish good reference. Address No. 889.

WANT position as superintendent or overseer of weaving. Experienced on both white and colored goods and now employed in large mill. Can give present and former employers as reference. Address No. 890.

WANT position as superintendent. Have had long experience and given satisfaction. Reason for changing better salary. Age 45.

Married. Strictly sober. Experienced from ground up on both white and colored work. Address No. 891.

WANT position as overseer of large card room or as assistant superintendent. Now employed as superintendent of small mill, but would change for larger job. Long experience and good references. Address No. 892.

WANT position as overseer of spinning or carding and spinning. Long experience. Now employed. Good references. Will not consider less than \$2.50. Address No. 893.

WANT position as superintendent or overseer at not less than \$5.00 per day. Long experience on fancies, dobby and jacquard goods. 13 years with present employer. Good habits and satisfactory references. Address No. 894.

WANT position as superintendent of yarn mill or overseer of carding, spinning or winding. Age 40 Married. Can furnish the best of references. Address No. 895.

WANT position as overseer of weaving. Employed at present and getting good production, but wish to change. Can furnish references. Address No. 896.

WANT position as superintendent. Have had long experience, especially on hosiery yarns. Can furnish best of references from former employers. Address No. 897.

WANT position as overseer of spinning. Have had long experience on both coarse and fine numbers and can furnish good references both as to character and ability. Age 41. Married. Address No. 898.

WANT position as overseer of spinning. Now employed and giving satisfaction, but prefer larger job. Long experience and fine references. Address No. 899.

WANT position as master mechanic. Age 33, and have had lots of experience in cotton mill work. Married. Sober. Reliable. Good references. Address No. 900.

COMPETENT young superintendent 30 years of age, wants larger position. Am practical and capable giving you good service on either plain, fancy, or colored goods. Will be pleased to submit reference and correspond with any good sized mill wanting a man. Address No. 901.

WANT position as superintendent or overseer of weaving. Now employed and giving satisfaction, but prefer to change. Can furnish best of references. Have had long experience. Address No. 902.

WANT position as overseer of small weave room or second hand in large room. Prefer Draper job but am also experienced on other makes. Address No. 904.

WANT position as superintendent. Long experience as carder and spinner and am now employed as

superintendent. Can furnish first class references. Address No. 905

WANT position as superintendent or overseer of carding. Have had long experience in yarn mills and in plain weaving mills. Fully capable of managing a large mill. Address No. 906.

WANT position as superintendent. Am now employed as superintendent and giving satisfaction, but want larger mill. Can furnish first-class references. Address No. 907.

WANT position as overseer of cloth room. Now employed, but want larger job. Would not consider less than \$3.00 per day. Good references. Address No. 908.

WANT position as superintendent of yarn or cloth mill. Long service and good training. Can build up run down plant to point of efficiency. Hustler and economical manager. Have never used liquor or cigarettes. Age 35. Married. Let me figure with you if your results are not what you desire. Correspondence confidential. Address No. 909.

WANT position as superintendent. Long experience and now employed, but wish to change. Good references, both as to ability and character. Address No. 910.

WANT position as overseer of carding. Age 36. Married. Sober. Have been in card room 17 years. Several years as overseer. Good references. Address No. 911.

WANT position as superintendent or overseer of spinning or overseer of twisting in a duck mill. Have had long experience as overseer and can handle and size room. Address No. 912.

WANT position as superintendent or overseer of large card room. Long experience in one of the most successful mills in the South and can give them as references. Address No. 913.

WANT position as master mechanic. 15 years experience in mill repair work and am now employed. Can furnish references from former employers. Address No. 914.

WANT position as overseer of carding. Now employed and giving satisfaction, but want larger room. Have always made good. Satisfactory references. Address No. 915.

WANT position as superintendent. Have had 33 years experience in cotton manufacturing and have been superintendent for 10 years. Now employed and can furnish good references. Address No. 916.

WANT position as second hand in carding. Have had long experience and am now employed overhauling. Good references. Address No. 919.

WANT position as master mechanic. Now employed, but wish to change on account of health of family. Long experience as mill master mechanic. Address No. 917.

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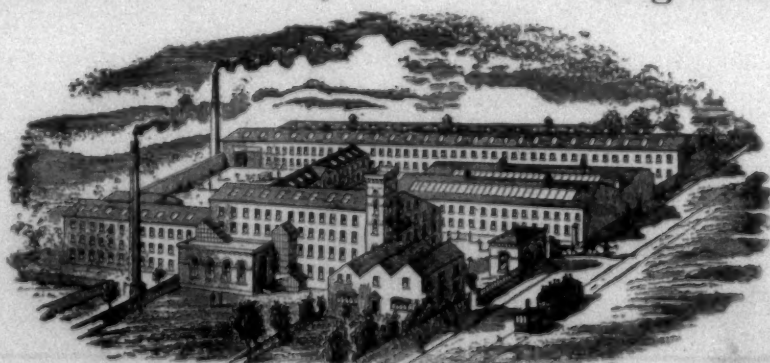
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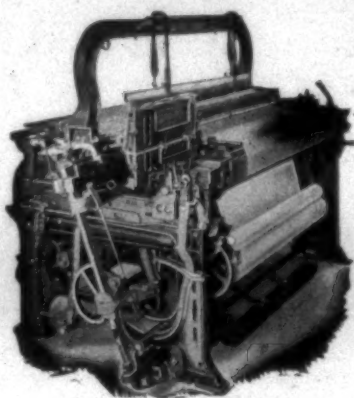
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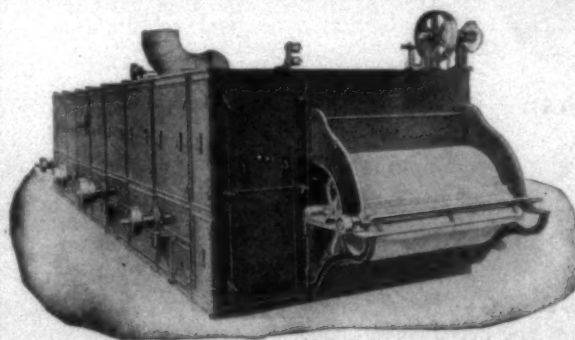
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